



**Canadian Urban Institute**  
**Institut urbain du Canada**



# **SUPPORTING THE BIG SHIFT WITH AGE FRIENDLY DEVELOPMENT**

**prepared for: THE REGION OF WATERLOO**

**date issued: APRIL 2014**

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Prepared by:

Glenn Miller, FCIP, RPP, Canadian Urban Institute

Eric Burnstein, Canadian Urban Institute

Tom Weatherburn, Canadian Urban Institute

Hoda Matar, Canadian Urban Institute

Prabin Sharma, Canadian Urban Institute

Philippa Campsie, Hammersmith Communications

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## Executive Summary

How will the aging of Canadian society affect our communities: transport, housing, employment, services, institutions? And how do those components of our communities in turn affect the lives of seniors, both those who are over 65 today and those who will become seniors over the next few decades?

These are huge questions, and the answers will touch all Canadian communities as the aging of the Baby Boomers increases the proportion of seniors in society. Statistics Canada estimates that by 2051, one-quarter of the population will be over 65 (the proportion in 2011 was less than 15%).

Planners at the Region of Waterloo have started to review the provision of transportation, and its relationship to housing form and location, from the perspective of the Region's existing and future seniors. At the same time, the Region has embarked on a long-term effort to encourage greater transit use and reduce levels of automobile use. Since seniors who no longer drive represent an important potential market for expanded and improved transit, the Region commissioned a study from the Canadian Urban Institute to explore the following research questions:

1. How widespread is the practice of re-positioning a community as transit-friendly?
2. What does it take to make a successful rapid transit community—what conditions are necessary and what strategies actually work? What is the time frame for measuring progress?
3. How do transit friendliness and age friendliness fit together?
4. What factors drive the decisions of seniors to move to housing forms that are consistent with transit use?

The Canadian Urban Institute surveyed the available research on population aging in relation to transit and searched for relevant case studies on how municipalities in Canada, the United States, Great Britain, and Australia are implementing transit-friendly policies and building transit infrastructure. Through a second set of case studies, all within Canada, CUI researchers looked at housing forms designed to appeal to seniors and assessed their potential for supporting transit use.

### ***How widespread is the practice of re-positioning a community as transit-friendly?***

The last decade or so has seen a renewed interest in building and promoting transit, after several decades in the late 20<sup>th</sup> century when transit building and funding were largely neglected. New transit lines are being created throughout North America, the U.K., Europe,

and in Australia. In some cases, cities are restoring elements of transit infrastructure such as tram lines that were destroyed in the 1960s and 1970s. So, the short answer to the research question is that the practice is indeed widespread. However, there are both successful and unsuccessful efforts. CUI researchers sorted through the many examples to find six that had some similarities with Waterloo Region and might offer useful lessons.

***What does it take to make a successful rapid transit community—what conditions are necessary and what strategies actually work? What is the time frame for measuring progress?***

The six municipal or regional case studies (Portland, Oregon; Arlington County, Virginia; Manchester, England; Adelaide, Australia; Ottawa, Ontario; and Winnipeg, Manitoba) focused on places that are trying to become transit-friendly, with varying results. Some are also trying to combine transit friendliness with age-friendliness.

Portland, Oregon, has implemented transit and transit-oriented development, but it is unclear whether the city has successfully turned drivers into transit users, or whether it simply attracts residents who already prefer to use transit. The Portland example also raises the question of whether typical high-density transit-oriented development (TOD) is also age-friendly and whether investing in TOD may occur at the expense of the improvement of more isolated areas, creating geographic inequities that could hurt seniors and soon-to-be seniors, many of whom live in environments that are inappropriate for aging in place.

Arlington, Virginia, has seen considerable TOD and high levels of transit use, but its policies have had about 30 years to bear fruit. Moreover, transit use by those living outside the transit corridor has been largely unaffected by the County's policies. However, the County does provide examples of policies that can encourage TOD close to transit lines.

Manchester, England, provides an example of neighbourhood-level planning and strategies to improve age-friendliness, through the clustering of services and the provision of "third places" for seniors to gather. The city acknowledges the diversity of its aging population and takes this diversity into account when planning for services, including transit.

Adelaide, Australia, has tried to encourage seniors' travel by treating the South Australia Seniors' Card as a transit pass, allowing free travel for seniors during non-peak periods. Research for South Australia's Ageing Plan found that seniors value mobility ever more highly as they age. The city has, however, been less successful in encouraging TOD because of the lack of a firm growth boundary.

Ottawa, Ontario, has been very successful in blending land use and transportation planning, focusing development around existing or planned transit stations, and implementing

requirements that shopping centres be within a five-minute walk of a transit station and that subdivision plans put all new homes within walking distance of a transit route. These policies have been in place since the 1980s, when the city implemented a network of Bus Rapid Transit lines. In the three decades since, the system has expanded and intensified, although a few areas in the amalgamated city remain underserved. The city also supports a Seniors Transportation Committee with a diverse membership that specifically focuses on transit issues that matter to seniors.

Finally, Winnipeg, Manitoba, has seen some improvements in transit use and transit-supportive development since the launch of its OurWinnipeg plan in 2011. The plan recognizes age and ability as one factor of diversity within the broader plan, recognizing the need to plan for older people and “mainstreaming” this planning for an aging population (rather than treating seniors as a special needs group). However, the City’s postponement of altering the zoning code to reflect current transit goals has impeded progress.

Overall, the examples show that real change takes a decade or more to realize and requires a package of policies that cumulatively and consistently support transit-supportive development and age-friendly services – from official plans and zoning, to the implementation of transit network with good coverage of the entire built-up area, to service planning that incorporates the ideas of seniors and ensures that their voices are heard in the transit planning.

### ***How do transit friendliness and age friendliness fit together?***

The two terms are not synonymous. Mass transit is designed around the needs of the “masses,” particularly commuters, and may not best serve seniors who travel to different destinations at different times of day. The walking and wayfinding required of transit users may be challenging for older, or more frail seniors. And, paradoxically, efforts to make transit accessible and attractive to seniors may make it so appealing to other users that seniors may be crowded out. Finally, the demand for transit that serves seniors is not as forcefully expressed as other types of transit demand; many seniors and their families create individual responses to travel challenges rather than demanding a public solution.

Nevertheless, there is some research on how to attract seniors to transit. In this paper, we have used the following criteria to assess whether transit can be considered “age-friendly”:

1. **Availability:** seniors need transit mainly in the non-peak periods and their destinations are not usually workplaces, so transit that puts commuters first will not meet their needs.
2. **Accessibility:** the transit available must be close enough to be convenient to use, and when a vehicle arrives, seniors should be able to get on it easily.

3. **Acceptability:** the transit journey from beginning to end must be perceived as safe, comfortable, and pleasant—these experiences apply to transit stops and their surroundings as much as to vehicles; the attitude of transit staff is also a consideration.
4. **Affordability:** seniors should consider the cost worth the journey; for example, short trips in non-peak periods should cost less than long trips at rush hour, which entails smart cards/smart pricing.
5. **Adaptability:** seniors who use walkers, wheelchairs, mobility scooters, or guide animals can use transit.

We recommend consideration of all five criteria as a package in planning that will help seniors make the transition from car use to transit use.

***What factors drive the decisions of seniors to move to housing forms that are consistent with transit use?***

To answer this question, CUI researchers studied six Canadian developments in British Columbia, Alberta, and Ontario that are being marketed to seniors and that are served by transit. The developments are generally mixed-use, or within easy walking distance of shops and services, and offer housing in a range of forms that include townhouses and apartments in mid-rise or high-rise buildings. Many include both rental and condominium ownership units.

In all cases, the demographic data show that the neighbourhoods are attracting increasing proportions of seniors. Some residents of longer standing have “aged in place” while others are moving to these neighbourhoods because they are attracted by the lifestyle and convenience. In general, all six neighbourhoods are walkable, contain a range of shops, services, and amenities, and are either on a waterfront or close to major parks and open spaces. All but one were created through redevelopment or infill within the built-up area. In most cases, the transit available is frequent (every 15 minutes or less) bus service.

In general, seniors seem to be attracted to smaller-scale, medium-density, mid-rise housing forms that are within walking distance of shops and services and that offer frequent transit that connects them to a wider range of amenities. However, given that these kinds of developments are still the exception rather than the norm in housing, it is too early to tell whether seniors are likely to move to transit-friendly housing in large numbers.

***How can age-friendly thinking support The Big Shift?***

The final chapter of this report summarizes our conclusions and recommendations as they might be applied at three scales of intervention: regional, along the transit corridor, and at the neighbourhood level.

The Region’s policies should be built around the following principles:

- Seniors are not a homogeneous group.
- Consistency and persistence are necessary attributes for effecting change.
- “Mainstreaming” positions age-friendly issues within the broader context.
- Transit-oriented development and age-friendly development are not necessarily synonymous.
- Age-friendly perspectives benefit from changes to service delivery as well as innovative policies.

*Recommendations for Regional policies*

1. The Region and Grand River Transit should consider the “Five A’s” as a package in planning that will help seniors make the transition from car use to transit use and that programs be developed to ensure that staff are attuned to the sensitivities of older adults with respect to the transit experience.
2. The Region and Grand River Transit may wish to explore the option of partnerships with the Region’s three local hospitals, major shopping centres, and BIAs to investigate the potential for augmenting transit service with timed response and shared taxi services using new and emerging “app” technologies.

At the scale of the transit corridor, two strategies are key:

- Create incentives to make age-friendly and transit-friendly development attractive to developers.
- Ensure that transit-friendly and age-friendly development remains affordable.

*Recommendations for developing the transit corridor*

1. The Region should consider identifying select neighbourhoods in the RT corridor to pilot the development permit system as a collaborative way to build on the potential for combining transit-friendly and age friendly development practices.
2. The Region and its municipal partners should consider adopting age-friendly site plan guidelines for the RT corridor, potentially incorporating concepts developed for the Peel Healthy Development Index, to be used during the development application process.
3. The Region and its municipal partners may also wish to consider adopting differential development charges for transit- and age-friendly projects in the RT corridor as an incentive to invest in additional site-specific urban design.
4. The Region should consider modifying its affordable housing strategy by identifying the RT corridor as a priority location for affordable housing projects for the community at large as well as older adults.

Finally, at the neighbourhood scale, the Region has the opportunity to:

- Create age-friendly environments to facilitate aging in place in the neighbourhood.
- Target housing developments to “empty nesters” and other older adults to encourage seniors to relocate within their existing neighbourhoods:
- Capitalize on the Region’s libraries to create a network of information hubs.

*Recommendations for neighbourhood interventions*

1. The Region and area municipalities should develop a strategy for retrofitting selected car-dependent neighbourhoods to encourage redevelopments that facilitate aging in place.
2. The Region and area municipalities should encourage phasing plans and building designs that provide for incremental increases in density through the addition of different housing forms over time.
3. In locations where market conditions cannot support retail or other amenities at the outset, developers should be encouraged to plan streetfront rental housing that can be later converted to retail or services.
4. Working collaboratively with municipal library boards and Grand River Transit, the Region should consider creating a neighbourhood-focused strategy to establish community libraries as information hubs (for transit education and route planning) and meeting points for age friendly mobility.
5. In conjunction with Mobility Plus, the library system could be developed as a network of hubs from which seniors can be taken by shuttle bus to mainstream transit routes.



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## **1. Introduction: What we were asked to do**

Waterloo Region has set the ambitious goal of gradually weaning its residents from dependence on cars for almost all transportation to the achievement of higher shares of transit and active transportation, a transition it calls “The Big Shift.” The plan includes construction of a Light Rapid Transit “spine” connecting the cities of Waterloo and Kitchener, and continuing to Cambridge as a Bus Rapid Transit line (due to be operational in 2017). Feeder transit lines will connect the spine to more outlying areas.

The Big Shift ties in with other initiatives, including Waterloo’s intention of going beyond the minimum requirements in the Growth Plan for the Greater Golden Horseshoe in terms of intensification and encouraging more compact greenfield development. Now the Region is showing leadership in tying these initiatives with the need to plan for an aging society.<sup>1</sup>

The terms of reference for this assignment (see Appendix 1) outlined a number of linked questions that emerged as priority areas of investigation. Consequently, we selected the following four questions to provide the framework for our report:

1. How widespread is the practice of re-positioning a community as transit-friendly?
2. What does it take to make a successful rapid transit community—what conditions are necessary and what strategies actually work? What is the time frame for measuring progress?
3. How do transit friendliness and age friendliness fit together?
4. What factors drive the decisions of seniors to move to housing forms that are consistent with transit use?

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<sup>1</sup> The term “seniors” refers to people aged 65 and older and should be understood as a short-form convenience since older adults are by no means a homogeneous group.

## 2. The Context for Age-Friendly Responses to Demographic Change

Canada has been preparing for the current demographic shift for a long time. The federal government introduced a variety of measures decades ago that created a reasonably secure safety net for older adults—a suite of programs that is the envy of many countries in the developed world. What is missing—and is in many respects the impetus for this study—is a better understanding of the importance and relevance of the built environment for older Canadians.

Beginning in 1927, Canada introduced the Old Age Security (OAS) system, providing a basic minimum income for “pensioners.” The payment is “clawed back” for those earning above a certain threshold. Postwar reform in 1957 saw the creation of the Registered Retirement Savings Plan (RRSP), which allows individuals to postpone paying income tax on personal savings until they reach the age of 70. RRSPs were innovative at the time, as this was before the rapid rise of defined benefit pension plans (which many today consider unaffordable). Credit is due to the foresight of policy makers back in the 1950s, when “senior citizens” accounted for less than 7% of the population. A decade later, in 1965, the government established the Canada Pension Plan (CPP), a system that depends on a modest tax on employee earnings up to a defined maximum. In 1967, the Government introduced a means-tested Guaranteed Income Supplement (GIS) for citizens over the age of 65. The CPP was reformed in the 1990s, when funding the plan out of government revenues had become unsustainable. The need for additional reforms to the CPP is also the subject of debate at present.

Despite these farsighted programs, it would be 20 years before policy makers took steps to address the relationship between aging of the population and the quality of the built environment. *Towards Community Planning for an Aging Society*, published in 1983 by Ontario’s Ministry of Municipal Affairs and Housing, was one of the first attempts by policy makers to communicate with the planning profession about the coming demographic shift.

Forecasts cited in the report have proved remarkably accurate, when one compares them to the 2001 census. The proportion of seniors (65 and over) in Ontario was 10% in 1961 (nationally, the percentage was closer to 7%). The proportion was predicted to reach 13.5% by 2001—the actual number for this year was 13%. Additionally, the 1983 report forecast this proportion to be 24% in 2031, while current forecasts predict a proportion of 25%, possibly reflecting the addition of older immigrants to the general population.

## 2.1 Planning for Seniors Means Planning for All

As far back as the early 1980s, however, researchers were saying that “planning for seniors” should not happen in isolation. The authors of the Ontario study emphasized “the importance of examining seniors’ needs and relating their needs to planning for the general population.”<sup>2</sup> The Ontario report identified four priority areas that, although the wording may be slightly different, reflect the focus of age-friendly planning today:

1. *The physical form and social composition of the neighbourhood:* In places dominated by single-family dwellings, “the senior is disadvantaged both by the separation of uses and by the distance to facilities and services.... Mobility becomes more difficult because of either cost or diminishing physical abilities.”
2. *The demand for transportation throughout the community:* The report cites University of Toronto research that highlighted key areas of mobility need—the means to get to services or, if necessary, work; special services for the disabled; a barrier-free walking or cycling environment; public transit that facilitates easy access to dispersed origins and destinations; and reasonable fares on transit. Interestingly, seniors with cars were identified as independent and “able to take care of their own needs.”
3. *The ways health and social services are delivered at the local level:* The report foresaw an increased demand for home-based service delivery.<sup>3</sup>
4. *The demand for certain housing types and locations:* The report references the desire of people to remain independent for as long as possible, but notes that “seniors who wish to stay in their own familiar neighbourhood usually have a limited range of housing to choose from.” The authors also suggest that in some cases, people may stay in place because they simply cannot find or afford alternatives. Thirty years later, not very much has changed.<sup>4</sup>

The document goes on to describe the value of “densification,” mixed use, and the creation of neighbourhood centres. The authors also covered a range of related issues such as pensions and disparities in income, the impact of aging on healthcare costs, and set out the groundwork for accommodating the needs of people with disabilities—noting a correlation between the incidence of disabilities and age. The authors point out that “housewives” [sic] acquired the ability to contribute to the CPP only in 1980, which may leave some elderly women in need of extra assistance in later years.

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<sup>2</sup> *Towards Community Planning for an Aging Society*, Municipal Affairs and Housing, 1983.

<sup>3</sup> *The Elderly in Ontario: An Agenda for the '80s*, Ontario Task Force on Aging, 1981.

<sup>4</sup> Ontario Task Force on Aging, 1981.

Most instructive, however, is the report's recognition that "seniors" are not a homogeneous group. Relying on the traditional medical model that divides the cohorts into "young old" (65–74), "old" (75–84) and "old old" (85+), the authors also foresaw the rise in "non-family" households as a result of high divorce rates and noted that choices made by couples not to have children has implications in terms of who might care for them in later life. Additionally, like any age group, seniors have remarkable diversity in terms of gender, ethnicity, socio-economic status, sexual orientation, and faith. As illustrated in Table 1 (Section 4.1), this is true for Waterloo region, and will only become more apparent in coming years.<sup>5</sup>

Perhaps because seniors represented such a small proportion of the population at the time, this well-researched report did not result in a push to explicitly plan for an aging population. Instead, through what was to become the "smart growth" movement in the United States and regional planning efforts in Canada, planners began to focus on the environmental and economic impacts of urban sprawl instead.

## **2.2 Aging Seen Through a Medical Lens**

The 1980s was a period of extraordinary levels of investment in scientific research affecting a spectrum of societal issues in Canada, including aging of the population. The Social Sciences and Humanities Research Council, formed in 1977, identified population aging as a stream for significant funding early on. One of the first beneficiaries in 1981 was the Centre on Aging, based at the University of Manitoba. Although research at the Centre concentrated on social issues such as intergenerational equity and dealing with the isolation of seniors in rural areas, with life expectancy increasing, federally funded research largely focused on addressing the impacts of chronic disease—such as cancer, heart disease, and diabetes.

The new challenge was how to provide appropriate care to a generation of older adults who were increasingly living long enough to experience chronic disease. An example of this trend was growing recognition that the incidence of dementia—a syndrome that includes specific diseases such as Alzheimer's—was likely to increase as the population grew older.

Thus health care became the principal lens through which researchers, policy makers, and the public came to understand seniors' issues.<sup>6</sup> Research emanating from this period also laid the groundwork for a growing interest in what was to become the "healthy communities" movement.

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<sup>5</sup> See the Manchester (UK) case study in this document to see how this city has incorporated intra-generational diversity into their age-friendly plan.

<sup>6</sup> "Canadian Governmental Report on Aging," Department of Health and Welfare, Ottawa, 1982



## 2.3 Adapting the Built Environment for an Aging Society

Researchers and policy makers gradually realized that a broader understanding of seniors' issues is necessary. In response, the federal government formed the Canadian Institute for Health Research (CIHR) in 2000. CIHR replaced the Medical Research Council, patterned on similar research institutes in the United Kingdom and the United States.

This work culminated with the formation in 2004 of the Public Health Agency of Canada (PHAC), which published a landmark report called *Healthy Aging in Canada*. The report made four important statements:

1. Seniors make a significant contribution to the richness of Canadian life and to the economy.
2. Healthy aging can delay and minimize the severity of chronic diseases and disabilities in later life, thus saving health care costs and reducing long-term care needs.
3. The evidence compels us to build on existing opportunities, to put in place interventions that are known to be effective, and to show leadership by supporting innovative approaches.
4. Canadians of all ages believe that efforts to enable seniors to remain healthy and independent are “the right thing to do.”<sup>7</sup>

This report was perhaps the first to incorporate the term “age friendly” into a comprehensive vision for healthy aging. In 2005, building on its focus on population health—CIHR established the Institute for Aging, which also funded health-focused research that was compatible with a growing curiosity about the role of the built environment as a determinant of health. Coincidentally, Ontario passed the *Accessibility for Ontarians with Disabilities Act* (AODA) in the same year, noting that the incidence of disabilities was likely to increase as the population aged. The AODA set standards to be met by publicly funded organizations and institutions with respect to facilitating access to the built environment, transportation and related issues.

In 2006, the World Health Organization (WHO) launched its pilot programs known as Age Friendly Cities (AFC). Canada's participation in several pilot initiatives, beginning in 2007, was led by Louise Plouffe, who had been a key contributor to the report on Healthy Aging when on secondment to the WHO. The WHO expressed its vision for creating “age friendly communities” in a document called *Global Age-Friendly Cities: A Guide*.<sup>8</sup> The concept

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<sup>7</sup> Healthy Aging and Wellness Working Group. *Healthy Aging in Canada: A New Vision, A Vital Investment. From Evidence to Action. A Background Paper for the Federal, Provincial and Territorial Committee of Officials (Seniors)*. Ottawa, Ontario, 2006.

<sup>8</sup> Available from: [http://www.who.int/ageing/age\\_friendly\\_cities\\_guide/en/](http://www.who.int/ageing/age_friendly_cities_guide/en/)

encompassed eight “domains” or subject areas. Of the eight domains, only three addressed the built environment directly:

- Transportation
- Housing
- Outdoor spaces and buildings.

The goal of making a city age-friendly is to adapt its structures and services to be accessible to older people with varying needs and capacities; the principles espoused by AFC seek to secure and enhance quality of life for people as they age. To reflect strong interest from rural and remote communities, Canadians use the AFC term to mean “age-friendly *communities*” rather than cities per se.

A year later, even though the concept of AFC was by now fairly well known within federal circles, Canada Mortgage and Housing Corporation (CMHC) published “Community Indicators for an Aging Population.”<sup>9</sup> The CMHC report identified six types of indicators:

- Neighbourhood walkability;
- Transportation options;
- Access to Services;
- Housing choice;
- Safety;
- Community engagement in civic activities.

This practical assessment by CMHC went further than the AFC concept, addressing issues covered by other new planning models such as New Urbanism, versions of Smart Growth that had been adapted to be applied to the neighbourhood scale, and Healthy Communities.<sup>10</sup> The WHO Global Network of Age-friendly Cities and Communities currently has 145 members in 22 countries, and 11 affiliated programs.<sup>11</sup>

Despite all this activity, relatively few places have really started to prepare cities for a future in which seniors make up a much larger proportion of the population. As the CMHC report concluded, “Most Canadian communities have made minimal progress in achieving smart growth and liveability goals to date, and are thus ill prepared to accommodate the

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<sup>9</sup> *Community Indicators for an Aging Population*, CMHC Research Highlight, Socio-economic Series 08-014, July 2008, page 2. <http://www.cmhc-schl.gc.ca/odpub/pdf/66099.pdf>. See also *Re-Positioning Age Friendly Communities: Opportunities to Take AFC Mainstream*, Canadian Urban Institute, Public Health Agency of Canada, 2011.

<sup>10</sup> See Chapter 5.3 for more detail on the CMHC indicators.

<sup>11</sup> <http://www.agefriendlyworld.org/cities-and-communities>

housing and mobility needs of an aging population.”<sup>12</sup> Indeed, most AFC initiatives, usually championed by social service agencies, university researchers, and volunteer councils representing seniors, are focused on the present, not the future.

One example worth mentioning is a set of initiatives driven by public health practitioners seeking to mitigate the impact of troubling trends in morbidity linked to the design of car-dependent suburban development. The incidence of Type 2 diabetes in the Peel population, for example, is one in ten residents, and there are indications that by 2025 this could increase to one in six.<sup>13</sup>

Given these grim forecasts, Peel’s medical officer of health has championed better design standards for suburban development that are compatible with criteria for age-friendly planning. In collaboration with Public Health Ontario and CLASP (Coalitions for Linking Action and Science for Prevention),<sup>14</sup> and building on work carried out under the banner of Healthy Canada by Design,<sup>15</sup> Peel is introducing policies and checklists (collectively known as “the Peel Healthy Development Index”) that deal with:

- Density (and built form)
- Proximity to services and transit
- Land use mix
- Street connectivity
- Road network and sidewalk characteristics
- Parking
- Issues related to aesthetics and human scale.<sup>16</sup>

The report ended with five major recommendations. Although age-friendliness was not the primary goal of this research, the five recommendations bear repeating for any city attempting to address age-friendliness, transit-friendliness, and healthy community development at the same time:

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<sup>12</sup> *Community Indicators for an Aging Population*, CMHC Research Highlight, Socio-economic Series 08-014, July 2008, page 2. <http://www.cmhc-schl.gc.ca/odpub/pdf/66099.pdf>

<sup>13</sup> Region of Peel Public Health, *Changing Course: Creating Supportive Environments for Healthy Living in Peel*, 2012, page 13, [http://www.peelregion.ca/health/resources/pdf/CDI\\_0480.pdf](http://www.peelregion.ca/health/resources/pdf/CDI_0480.pdf)

<sup>14</sup> Peel Medical Office of Health and Commissioner for Health Services, Report, November 11, 2009. <http://www.peelregion.ca/council/agendas/pdf/gc-20091203/report-he-c1.pdf>

<sup>15</sup> See <http://hcbd-clasp.com/>

<sup>16</sup> James Dunn et al., *Peel Healthy Development Index*, December 2009, <http://www.peelregion.ca/health/urban/pdf/HDI-report.pdf>

1. Develop a business case that demonstrates the benefits of healthy urban design to other agendas such as environmental sustainability, transit-oriented development, and age-friendly design.
2. Revise municipal and regional planning and transportation standards to be consistent with recommended prerequisites—allowing developers to meet health and policy standards simultaneously, without an appeal process.
3. Use a comprehensive, multi-sectoral approach to resolve the inconsistencies between levels of government, between municipalities, between departments, and between sectors that restrict healthier development.
4. Adapt future versions of the Index to account for the significant differences between small intensification projects and larger, greenfield development.
5. Encourage the prioritization of public health in both transportation and urban planning, avoiding policies that serve private vehicular travel at the expense of the active transport network (e.g., walking, cycling, public transit).<sup>17</sup>

Despite heightened interest in age-friendly issues in Peel, it fell to the department of public health rather than the planning department to launch this initiative because of the urgent need to deal with the health of the population. It is anticipated that implementation of the Index will subsequently be incorporated into regional transit plans, strategies for sustainability and age-friendly policies.

This is but one close-to-home example of a municipal-level initiative to address the needs of seniors through attention to the built environment. The AFC website contains many other recommendations, and we have built on its work in this report.

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<sup>17</sup> Ibid., page 3.

### 3. What we did

While the Waterloo Region is not alone in its desire to become less dependent on cars and more supportive of transit, only a handful of other communities acknowledge that it is neither necessary nor desirable to position the challenge as an “either/or situation.”<sup>18</sup> The Big Shift initiative proposes to soften the distinction between supporting the car versus promoting the use of transit by seeking to better understand how development drivers interact with public policy and the marketplace. Our approach had to take this into consideration in working towards the overarching goal for the study: to determine how best to advance the goals of The Big Shift by taking into account the needs of an aging society.

#### 3.1 We Established Principles

Before launching our search for best practices (or, in some cases, failed but instructive practices), we identified the following principles to guide our investigation.

***We must understand the scale of a practice or policy to assess whether it can be successfully adapted in the Region of Waterloo.***

Regional or city-wide policies generally determine where to locate a particular land use as well as provide indications of that land use’s role and character. This geographic level also provides the context for key transportation initiatives in terms of establishing the urban structure of a community, some of which will reach beyond local municipal boundaries. Neighbourhood-scale planning on the other hand concerns itself with decisions about subdivision design and street layout, which affects issues such as street connectivity. The distribution of land uses at the neighbourhood scale, which is primarily the responsibility of the area municipalities in the Region, is key to determining access to amenities as well as precisely determining density or intensity of use.

***The term “age-friendly” applies to all ages.***

Planning effectively for seniors means planning for everyone. Based on the concept of universal or inclusive design, an understanding that “age friendly” applies to all ages is a fundamental requirement for ensuring that age-friendly practices contribute usefully to the larger goal of creating a successful Rapid Transit-focused community.

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<sup>18</sup> That is, the Region has wisely avoiding positioning The Big Shift as a “war on the car.”

***Although municipal departments and agencies traditionally separate capital and operating initiatives, case studies should consider both sides of the ledger.***

Budget feasibility from a capital and an operational standpoint is a critical test in terms of whether a policy is “implementable” or whether an operational innovation is sustainable. Where feasible, the case examples should also highlight benchmarking or other monitoring processes to help determine the timeframe for achieving desired outcomes.

***Although the notions of “transit-friendly” and “age-friendly” are by no means synonymous, there are some important overlaps.***

The literature typically divides plans and projects according to their principal focus (i.e., transit-friendly or age-friendly), but a third important dimension is research in the area of “healthy communities.” Although the principal driver for healthy communities begins with the desire to enhance human health through sensitive design of the built environment to promote greater levels of physical activity, many of the solutions are applicable to transit- and age-friendly design.

With these principles in mind, we undertook an analysis of the Region to better understand its situation. This step involved mapping the distribution of housing by type in the Region’s neighbourhoods, gaining an understanding of their era of development, and then linking those results to the time-series data identifying the age of “household maintainer.” This allowed us to assess current and future conditions affecting the mobility of seniors in terms of the “walkability” of Waterloo Region’s various neighbourhoods and the degree to which older adults would be dependent on driving. See Chapter 4 for more detail on this issue.

## **3.2 We Developed the Research Questions**

Our research addressed four specific questions:

### ***1. How widespread is the practice of re-positioning a community as transit-friendly?***

The first task was to identify fast-growing cities and regions that, like Waterloo, have recognized that they need to find ways to become transit-friendly, or to use the term coined by the Region—to become Rapid Transit (RT) communities. Because the list of potential cities was extremely large, our scan focused on identifying places that have articulated and implemented high-level policies and/or investment practices. Our scan covered North America, selected cities in South America, Australia, East Asia, the United Kingdom and Europe. We decided that narrowing the search to cities that we consider to be analogues for the Region in terms of physical form, economic drivers and demographic profile would be unnecessarily restrictive. Nevertheless, we dismissed many fast-growing cities in Canada where growth has been entirely dependent on resource development or cities in

the U.S. Sunbelt where growth is virtually all in suburban form. Such cities have weak core areas or lack a reliable basis upon which to build a transit culture. On the other hand, we also had to discount a number of European and Australian cities with historic, compact central areas that have experienced suburban “sprawl” in recent decades because the transit culture appeared to be too well-established in those core areas to be considered a “shift.”

The long list of cities in the “transformation” category was then reduced to a manageable number to identify the success (or lack, thereof) to implementation such as timeframes, determinants of progress and the role played by political or community champions.

***2. What does it take to make a successful RT community—what conditions are necessary and what strategies actually work? What is the time frame for measuring progress?***

Answering this question led to a search for cities that are successfully combining land use intensification strategies with innovative capital investment in rapid transit in clearly identified development corridors. The development and application of planning policies that support intensification must be consistent at all scales. This is true for the Region of Waterloo with its long history of maintaining a firm urban boundary and a commitment over the past two decades to intensification in both its main development corridor and within discrete neighbourhoods.

We also found that in the absence of market demand, even the strongest planning policies and capital investment in infrastructure are likely to be ineffective. The natural tension between achieving public policy goals and satisfying the needs of the marketplace requires a balancing act and one can rarely be achieved with the other. In many respects, people need to be able to see and experience a new type of development before they are willing to endorse it personally. This requires a commitment from visionary developers who see potential to establish or shape demand. Developers of this kind have been behind the successes of nearby centres in Port Credit and downtown Burlington, Ontario, as well as in the Kitsilano neighbourhood of Vancouver, British Columbia.

It also became apparent that transformation to a rapid transit future requires a sustained and sustainable commitment to a vision which incorporates land use policies, and the ability to nurture support from a variety of stakeholders. These stakeholders include members of the general public, who must believe that planned investments will be beneficial and worth potential increased costs or any disruption during construction. Political leaders want to know they are using their “political capital” wisely, and developers need to understand how and when they can expect to achieve their investment goals. Underlying all of these imperatives is the obligation of planners and others involved in

policy development and implementation to ensure that all necessary tools and requirements are in place to create appropriate conditions on the ground.

In terms of pursuing a strategy for transforming a community to be more transit-focused, the essential driver comes from commuters, as well as in successfully concentrating jobs in transit-accessible locations so that commuters have the option of taking transit.

### ***3. How do transit-friendliness and age-friendliness fit together?***

Although these terms are not synonymous, under certain circumstances, they may be complementary. We identified a set of principles for creating age-friendly transit, as well as indicators of age-friendly communities. These principles and indicators can be used to develop policies for transit service provision and to evaluate transit-oriented development for age-friendly features.

### ***4. What factors drive the decisions of seniors to move to housing forms that are consistent with transit use?***

Although many surveys have tried to determine whether older adults are likely to stay in their current dwellings, few (if any) approach the question from the perspective of determining the conditions that actually encourage seniors to move to places that have the features of a transit-friendly community.

The Canada Mortgage and Housing Corporation tracks relocation data through the census and also carries out regular housing surveys. The census records the number of people who have moved within the last five year period by age cohort, marital status, and other categories. Generally speaking, the most mobile are those who are single, either because they have lost their spouses or are divorcees. Older Canadians who have been renters are likely to move more often than people who have owned their own homes, possibly because of lower incomes or reduced security of tenure.<sup>19</sup>

Although older people overall move less often than younger Canadians, the likelihood of moving varies greatly by age among those over 55. About 41% of all Canadians of all ages have moved at least once in the five year period from 2006–2011. For people aged 55–64 this percentage dropped to 25% and for older adults 65 and older, this percentage dropped to 19%: 11% of whom were “non-migrant” movers who stayed in their own communities, and 8% of whom moved to a different census subdivision.

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<sup>19</sup> CMHC—“Do seniors want to stay in the communities or move elsewhere?” [www.cmhc-schl.ca](http://www.cmhc-schl.ca)



Reviewing the results of the latest census<sup>20</sup> reveals a noticeable decline—from 25% to 22%—in the percentage of adults aged 55–64 moving within the five year period 2006–2011. For adults over the age of 55 classified as “non-migrants”—people who relocated within their own community—the percentages also showed a decline in the number of movers, from 13.1% to 12.2% for people aged 55–64. Older age cohorts also showed a minor decline in the percentage of seniors relocating within their own community, from 10.8% to 9.9% (65–74) and 10.4% to 9.8% (75+).

Gerald Hodge describes three factors that characterize seniors who choose to relocate.<sup>21</sup>

- “Amenity” migrants are people who make a decision to seek out a more desirable environment of their own accord—seniors who are looking for housing that better meets their needs in terms of lifestyle.
- “Assistance” migrants need to move to benefit from help or support from children or others.
- “Return” migrants, on the other hand, come back to their community of origin or long-time association in search of a variety of support or amenities.

Combining these insights with those of other commentators, we considered seniors as responding to two main categories: “push” criteria and “pull” criteria, which can be subdivided into “physical,” “economic,” “social,” or “location” factors.

“Push” physical factors include declining health, reduced ability to manage the daily necessities of life or physical disabilities such as difficulty with stairs or the absence of ramps for people using mobility aids. Comparable “pull” physical factors are often associated with “empty nesters”—people who are looking to reduce their responsibilities to maintain a house and move to places that allow more time to travel or undertake other activities.

“Push” economic factors include the need to access equity tied up in one’s dwelling, either because of reduced income in retirement, or in response to rising costs of maintenance including rising taxes, hydro, repairs etc. Renters also encounter “push” factors resulting from rents increasing at a greater rate than income, leading to a need to find less costly accommodation. Equivalent economic “pull” factors occur when seniors determine that selling the family home can liberate equity that can be reinvested in smaller dwellings or reinvested for the purpose of providing better cash flow to support a different lifestyle, resulting from the freedom to rent rather than tie up equity in a dwelling.

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<sup>20</sup> Statistics Canada 2011 National Household Survey: Data tables

<sup>21</sup> *The Geography of Aging*, McGill-Queens Press, 2008

Social “push” factors include changes in lifestyle or personal circumstance such as loss of a spouse, divorce or some other factor affecting household size and/or viability. Another factor, not often dealt with in the literature, is “pressure from children” to relocate. This can occur whether or not children are in the same city and is most likely associated with other dynamics such as what is sometimes referred to as the “sandwich” generation—adults who have a double responsibility for their own children but are also called upon or feel compelled to be responsible for their aging parents. Social “pull” factors are often a positive influence, where older adults see an opportunity to travel, or relocate to places more conducive to a desired lifestyle defined by opportunities to volunteer or pursue recreational opportunities.

Finally, location “push” factors are those where older adults find themselves isolated from friends and family (who might have moved away or died) or where the ambience of the neighbourhood is demonstrably less attractive than it once was. Again, these factors are largely absent from the literature but appear often in anecdotal contexts. Another example might be when the quality and level of services available in a neighbourhood have visibly declined as a result of changes in the economic make-up of the population or a drop in the size of the population sufficiently significant to affect retail and other services. Location “pull” factors cover a range of circumstances appear more in marketing literature for condominiums than in academic literature, where individuals are drawn to an area—possibly within the neighbourhood where they have lived for many years—that possesses a range of housing stock and other amenities that are sufficiently attractive to warrant a change.

We also searched for evidence to determine if there are specific factors that precipitate a positive decision on the part of seniors to relocate to places that possess “age-friendly” characteristics. In that regard, we have identified a number of neighbourhoods developed within the last decade or so (such that census results for the area are comparable) that are in a mixed use community, transit-friendly, walkable and where there appear to be a range of amenities. From an analysis of these projects, we conclude that at this stage local government must persuade (or allow or encourage) developers to build product that meets these criteria so that the population can modify or perhaps satisfy their expectations. We describe this research later in the report.

While understanding reasons for relocation is important, it is also necessary to acknowledge that most older adults “age in place.” One explanation is inertia: unless there are factors that either “push” or “pull” seniors to a new location, the easiest solution for many is stay where they feel comfortable and where their quality of life is reasonably satisfactory. People naturally form attachments to places they have lived most of their adult lives and familiarity with one’s neighbourhood is a powerful reason to avoid moving, even if the house may be too large or the location is not ideal. Another reason for staying

put—again, something poorly documented in the literature—is that the marketplace has not yet provided a sufficient number of attractive options that might prompt a decision to relocate. We address this issue in more detail later in the report.

### **3.3 We Created Criteria for Our Case Studies**

We carried out two forms of case studies: city-level studies, which examine a variety of policies and infrastructure investment intended to bring about structural and behavioural change, and neighbourhood-level studies, which provide insight into what constitutes an age-friendly community on a smaller scale.

For our city-level studies, our initial scan covered 54 fast-growing cities on five continents that have made a commitment to reducing residents' dependence on the private automobile, either to tackle congestion or to address air pollution caused by cars and trucks, or both. This longer list was scaled back to a smaller number and eventually reduced to six cities that we felt held the most promise for answering the questions referred to above, based on the following criteria:

- Do aspects of the cities' forms, sizes, economies, and populations allow for a reasonable comparison to Waterloo?
- Have initiatives have been in place long enough to show results (but not so long that there is no need for residents to shift travel patterns)?
- Are there complementary age-friendly initiatives that encourage transit use?

For our neighbourhood-level studies, we searched exclusively in Canada to ensure similarity in the policy context. We looked for urban and suburban neighbourhoods that have experienced significant development in the last 15 years and that met some of our criteria for an age-friendly neighbourhood, including access to public transportation, walkability, attractive street-level environment, and access to a range of amenities. From our search we selected six neighbourhoods that have, with varying levels of success, shown signs of popularity with seniors and those preparing for older adulthood.

## 4. Waterloo Today

### 4.1 Demographics

The Region of Waterloo is one of the fastest-growing urban areas in Ontario. Since the Region was formed in 1973, its population has almost doubled—from 268,000 to 543,700—and is on track to reach 729,000 by 2031. Like many fast-growing communities in North America and elsewhere, much of this growth has been in low-density, sprawling suburbs, a situation that poses significant challenges for a Region wishing to preserve quality of life and ensure that it remains competitive in today’s knowledge economy.

While in-migration still accounts for a large portion of the region’s population growth, older adults (65 and over) and “seniors in training” (55–64) make up a growing demographic. The 65+ age cohort was 12.5% of the population as of the 2011 Census, up from 11.6% in 2006. Likewise, the 55–64 cohort has grown from 10% in 2006 to 11.5% in 2011. Demographers expect these cohorts to continue to grow as a proportion of the population for at least the next two decades, as the baby boomers move into older adulthood, and live much longer than previous generations.

In addition to growing in number, the older populations are also more diverse, both in background and needs. As Table 1 shows, the percentage of older adults who are immigrants is growing, along with the diversity of backgrounds and the number of visible minorities among those 65+. In the coming years, it will be necessary to plan not just for an older population, but for a population with many different views of aging and elders.<sup>22</sup>

**Table 1 – Diversity among Older Adults in the Waterloo Region<sup>23</sup>**

<b>Older Adults in Waterloo Region: Growing More Diverse</b>	
Of the <b>54,265</b> people over the age of 65:	<ul style="list-style-type: none"> <li>• <b>7.70%</b> are visible minorities,</li> <li>• <b>40.43%</b> are immigrants to Canada,</li> <li>• They represent <b>86</b> distinct ethnicities.</li> </ul>
Of the <b>54,215</b> people currently 55-64:	<ul style="list-style-type: none"> <li>• <b>10.49%</b> are visible minorities,</li> <li>• <b>31.63 %</b> are immigrants to Canada,</li> <li>• They represent <b>96</b> distinct ethnicities.</li> </ul>

<sup>22</sup> See the Manchester case study in Section 6.3 for an example of a city that has worked to incorporate diversity among older adults into its aging plan.

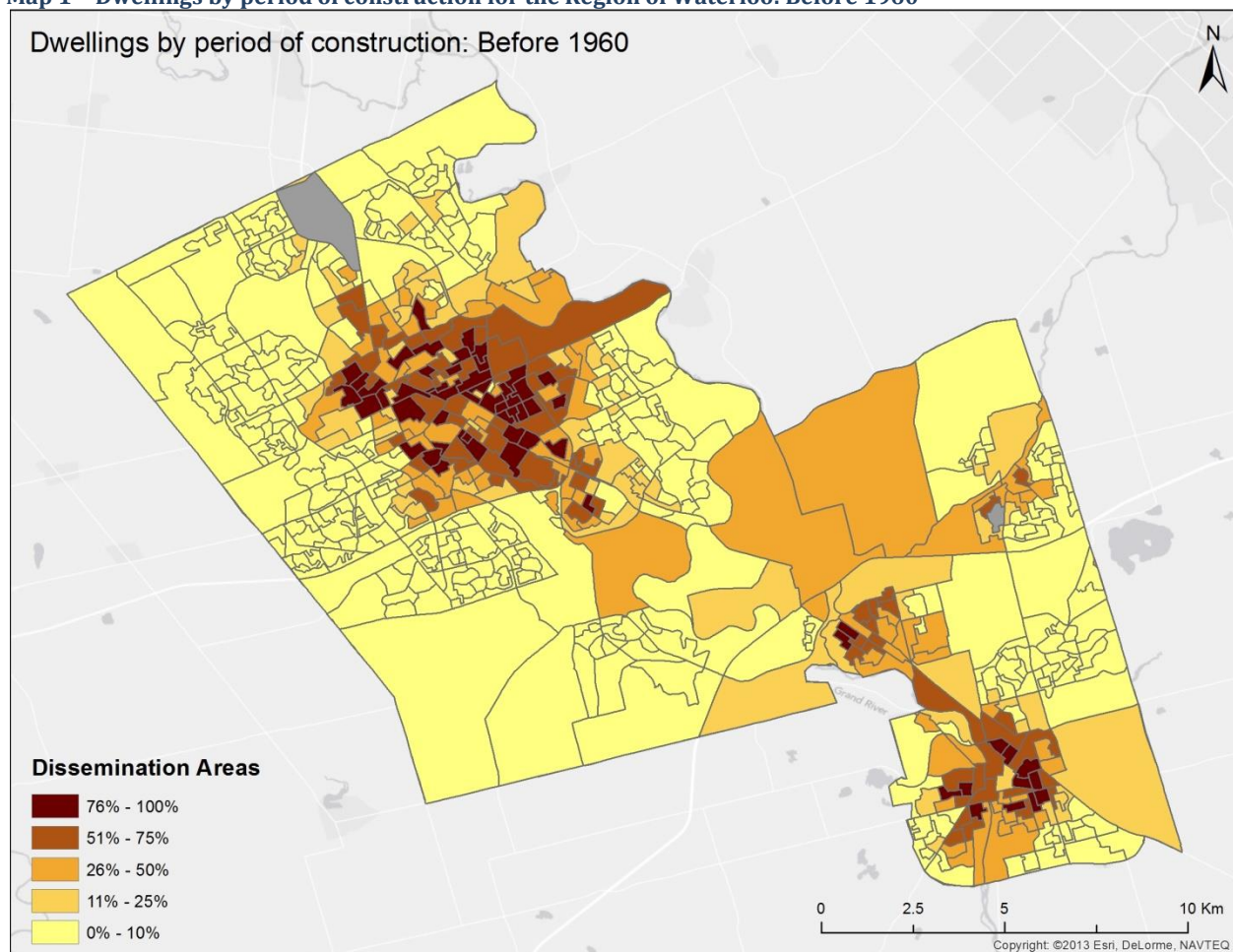
<sup>23</sup> Statistics Canada. 2013. National Household Survey Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released June 26 2013. <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E>

## 4.2 Built Environment

The Region of Waterloo, like many other Canadian communities, shows a pattern of decreasing densities in new development from the 1950s to the 1990s. The Region has added between 27,000 and 31,000 units every decade; approximately 80% of all dwellings have been constructed since 1960, and 42% of all existing, residential units in the Region are single-family dwellings.

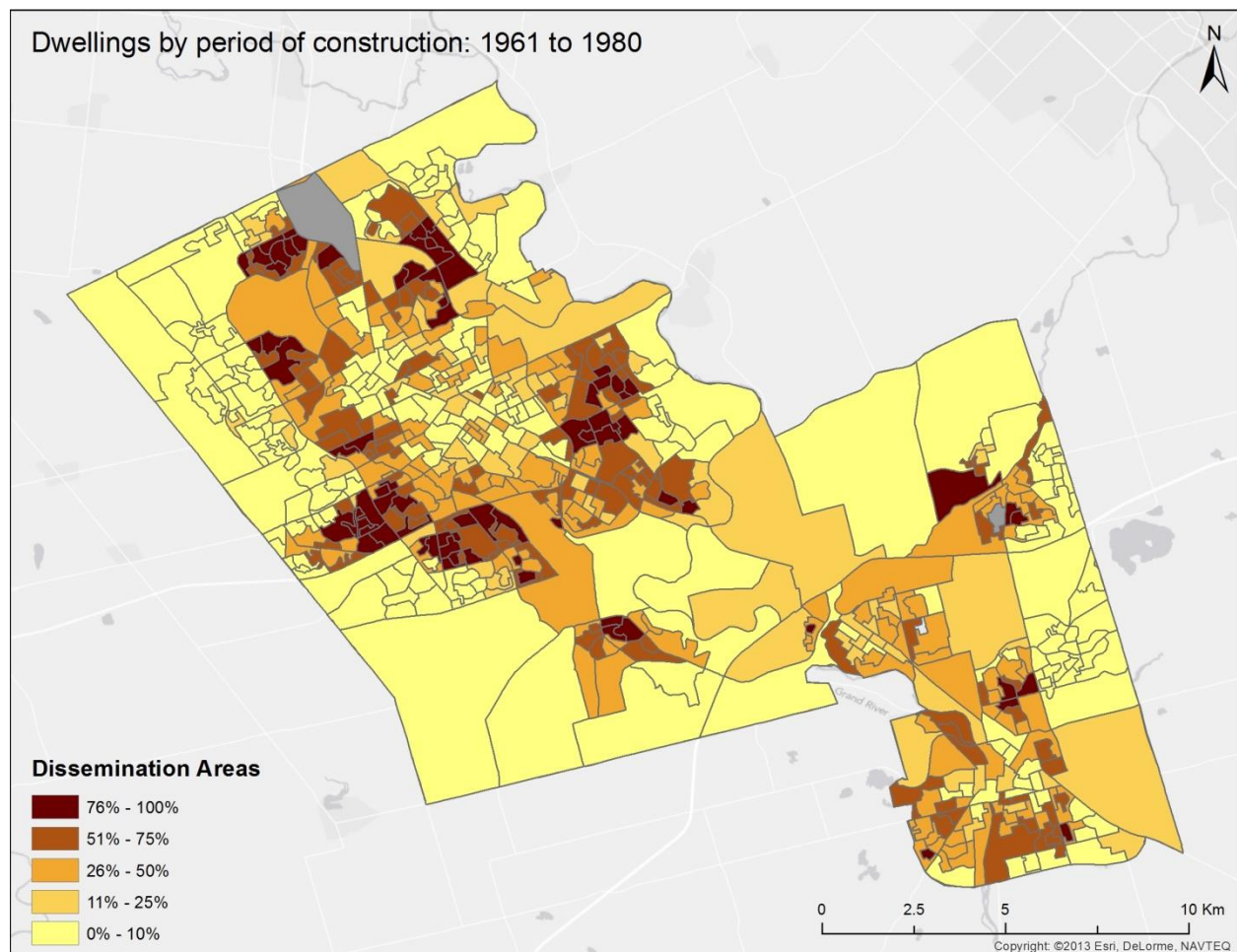
The following maps show the percentage of existing development that took place in each census tract over the past half-century. The trend is clear: development has been moving from the urban core of the region to the periphery.<sup>24</sup>

**Map 1—Dwellings by period of construction for the Region of Waterloo: Before 1960**



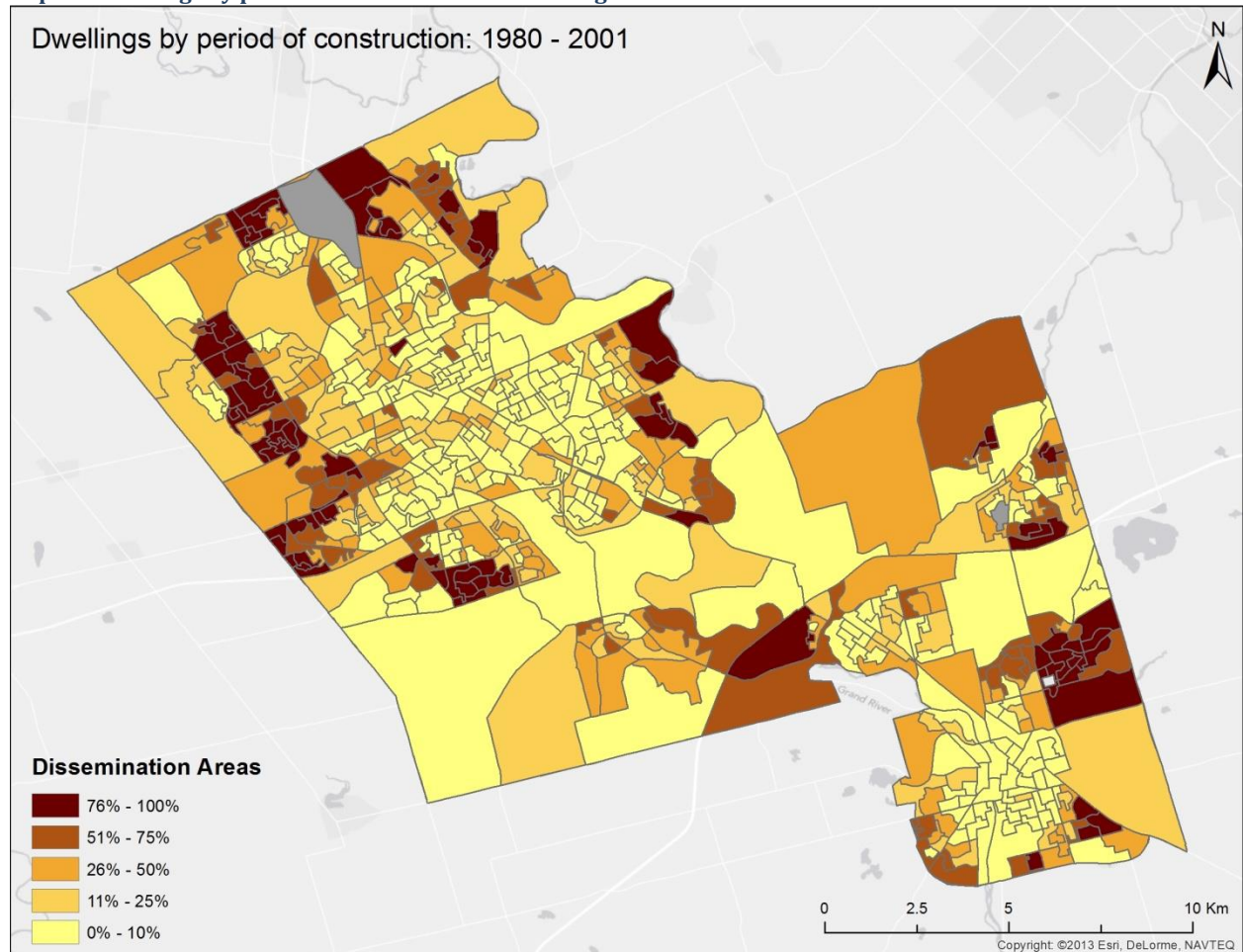
<sup>24</sup> Data source for maps: Statistics Canada, 2011 National Household Survey, Semi-custom profiles for Canada, Provinces, Territories, Census Divisions, Census Subdivisions and Dissemination Areas. Received October 1, 2013.

Map 2 – Dwellings by period of construction for the Region of Waterloo: 1960–1980

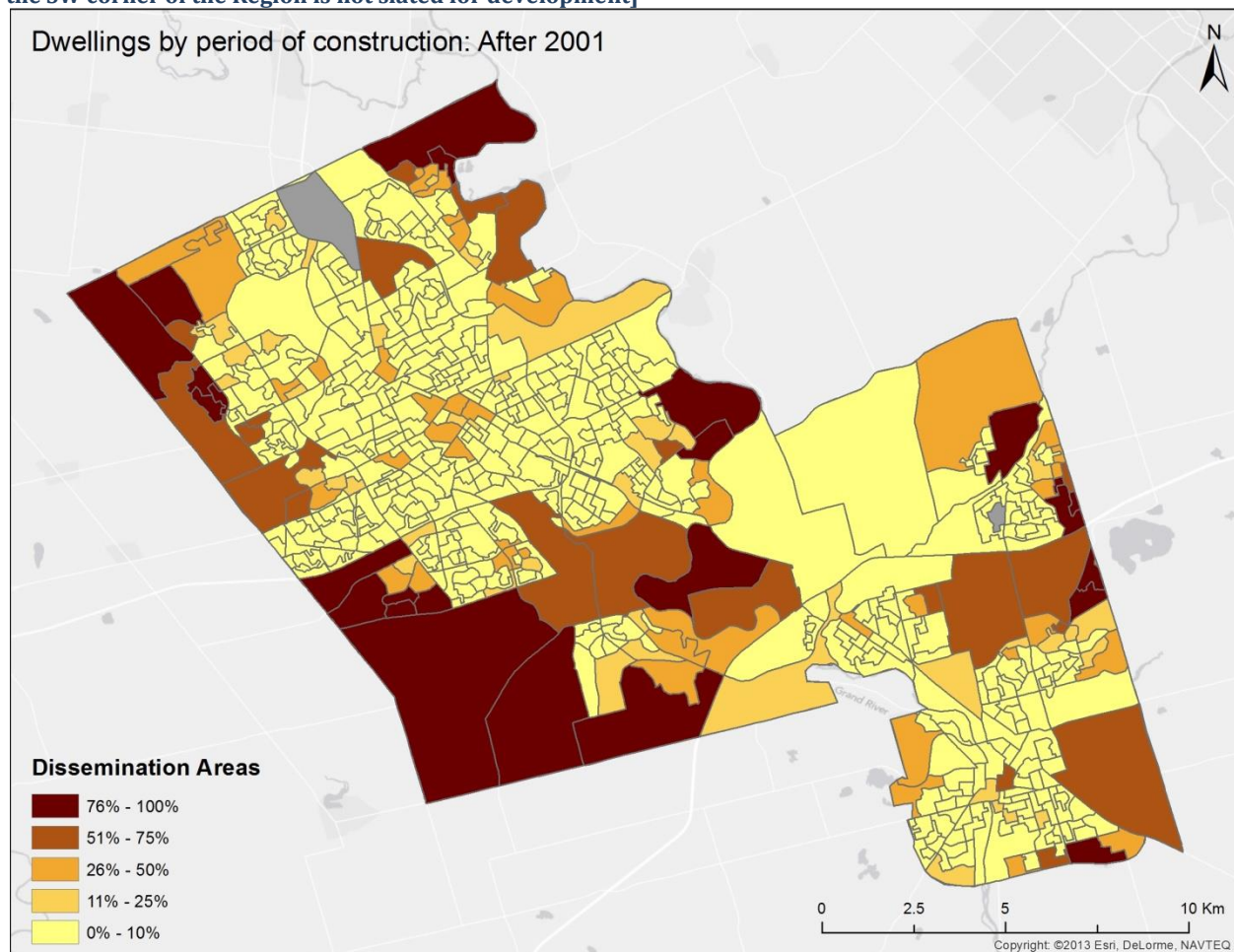




**Map 3 – Dwellings by period of construction for the Region of Waterloo: 1981-2001**



**Map 4 – Dwellings by period of construction for the Region of Waterloo: After 2001 [Note that a small section of the SW corner of the Region is not slated for development]**



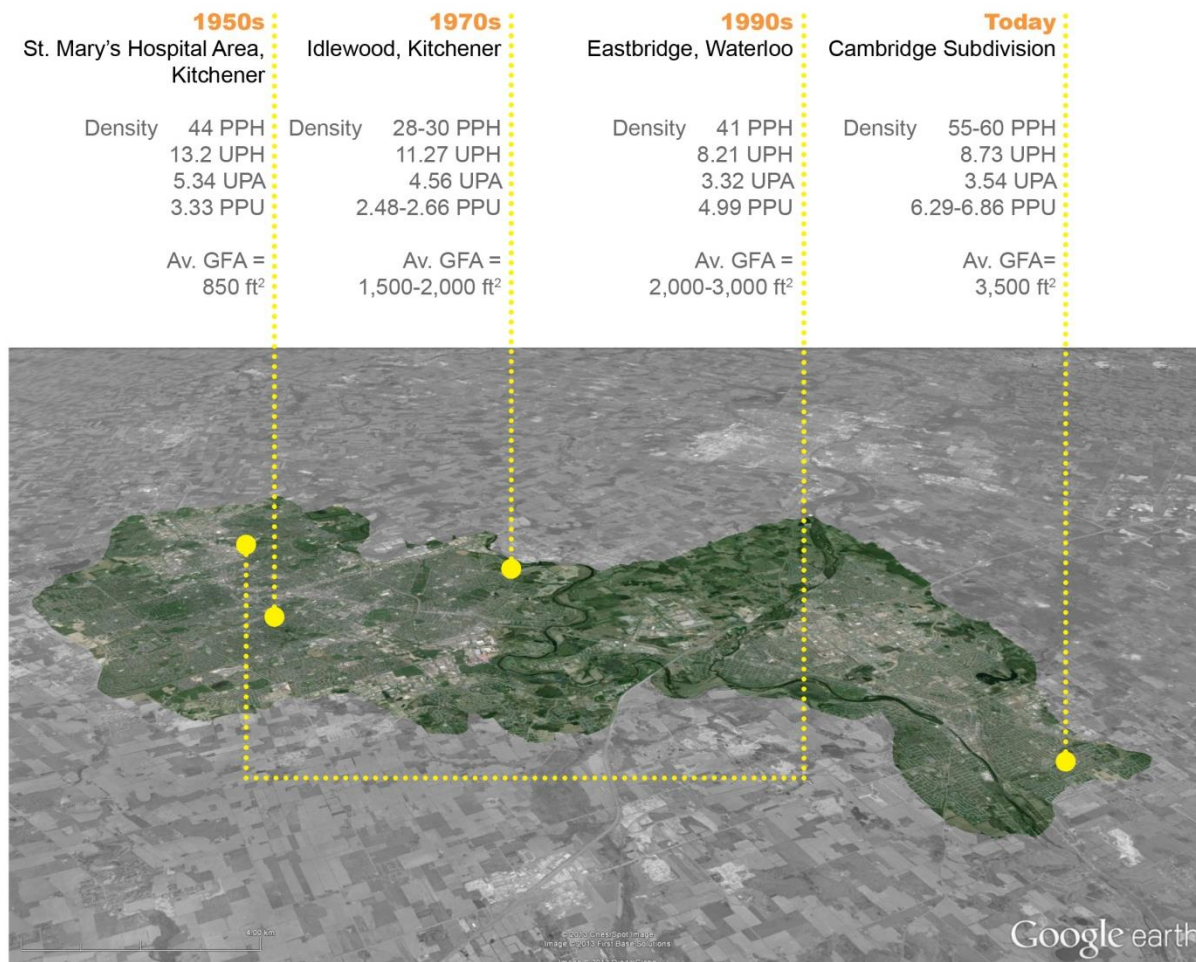
Not surprisingly, the images illustrate that development in the Region began in the cores of the three constituent municipalities.

Although development followed a steady outward direction, the post-2001 map shows evidence of infill, mostly along the Rapid Transit corridor. The following figure illustrates the distribution of single-family dwellings. By and large, the map confirms that outlying neighbourhoods have the largest proportion of single-family dwellings as a proportion of each census tract.



Map 5 – Density and house size changes in Waterloo since the 1950s

### Density and House Size Changes in the Regional Municipality of Waterloo since the 1950s



Using an approach developed by the Region,<sup>25</sup> we prepared a timeline to illustrate that the average size of single-family dwellings has increased over time, and that subdivision layouts have evolved from a relatively grid-like pattern to a curvilinear pattern of cul-de-sacs and loops.<sup>26</sup>

<sup>25</sup> Presentation by Kevin Eby, Region of Waterloo, to the Canadian Urban Institute, November 9, 2009.

<sup>26</sup> Images collected from Google Earth. Data provided by the Region of Waterloo

Image 1 – Waterloo Region housing patterns in the 1950s

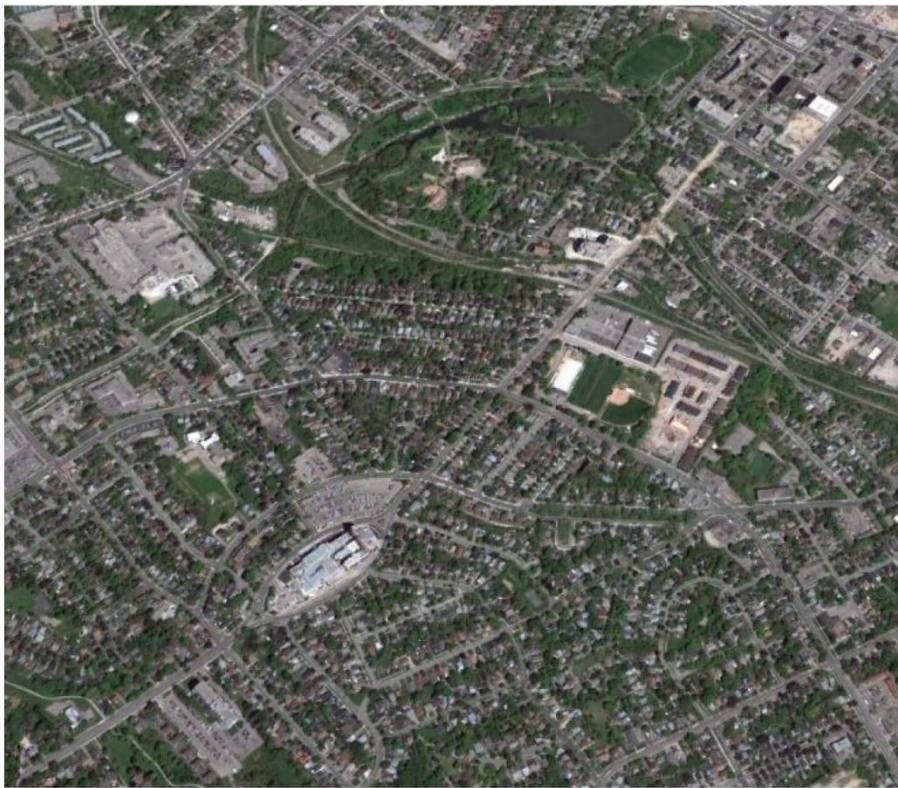
**1950s****St. Mary's Hospital Area, Kitchener**

Image Source: Google Earth 2013

NORTH

0 600 M



Images Source: Google Maps Street View

PPH<sub>aprox.</sub> = 44.0PPA<sub>aprox.</sub> = 17.8UPH<sub>aprox.</sub> = 13.2UPA<sub>aprox.</sub> = 5.34PPU<sub>aprox.</sub> = 3.33Av. GFA<sub>aprox.</sub> = 850 ft<sup>2</sup>  
(78.97 m<sup>2</sup>)

Houses that date from the immediate postwar period are usually fairly small (about 850 sq. ft. on average), and neighbourhoods are built at medium densities (about 44 people per hectare), on streets that form a grid or modified grid pattern. Most are close to shopping and commercial streets. Those who bought these houses when they were in their twenties (probably at the time they were starting their families) are now in their eighties. Many have moved out, some have died, but some of the original residents remain.



Image 2 – Waterloo Region housing patterns in the 1970s

**1970s****Idlewood Park, Kitchener**

Image Source: Google Earth 2013

NORTH

0 600 M



Images Source: Google Maps Street View

PPH<sub>aprox.</sub> = 28-30  
 PPA<sub>aprox.</sub> = 11.34-12.15  
 UPH<sub>aprox.</sub> = 11.27  
 UPA<sub>aprox.</sub> = 4.56  
 PPU<sub>aprox.</sub> = 2.48-2.66  
 Av. GFA<sub>aprox.</sub> =  
 1,500-2,000 ft<sup>2</sup>  
 (139.35- 185.81m<sup>2</sup>)

Houses built in the 1970s are larger (about 1,500–2,000 sq. ft. on average) and the neighbourhoods are more spread out (28 and 30 persons per hectare). Curving streets and cul-de-sacs are typical, as are two – and three-car garages. Shopping is in the form of shopping malls. These 1970s subdivisions were built for cars, and are hard to serve with transit. People who bought these houses when they were in their twenties are now in their sixties and approaching their retirement years. Some residents may be older—these would be people who “upsized” to these houses when they were in their thirties and forties and their families were still fairly young and needed more space than the older, more centrally located houses could provide.

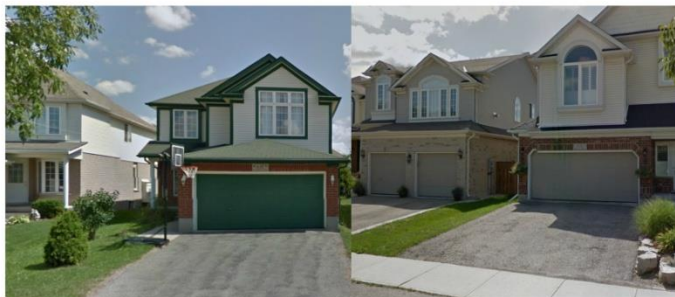
Image 3 – Waterloo Region housing patterns in the 1990s

**1990s****Eastbridge, Waterloo**

Image Source: Google Earth 2013

↑ NORTH

0 600 M



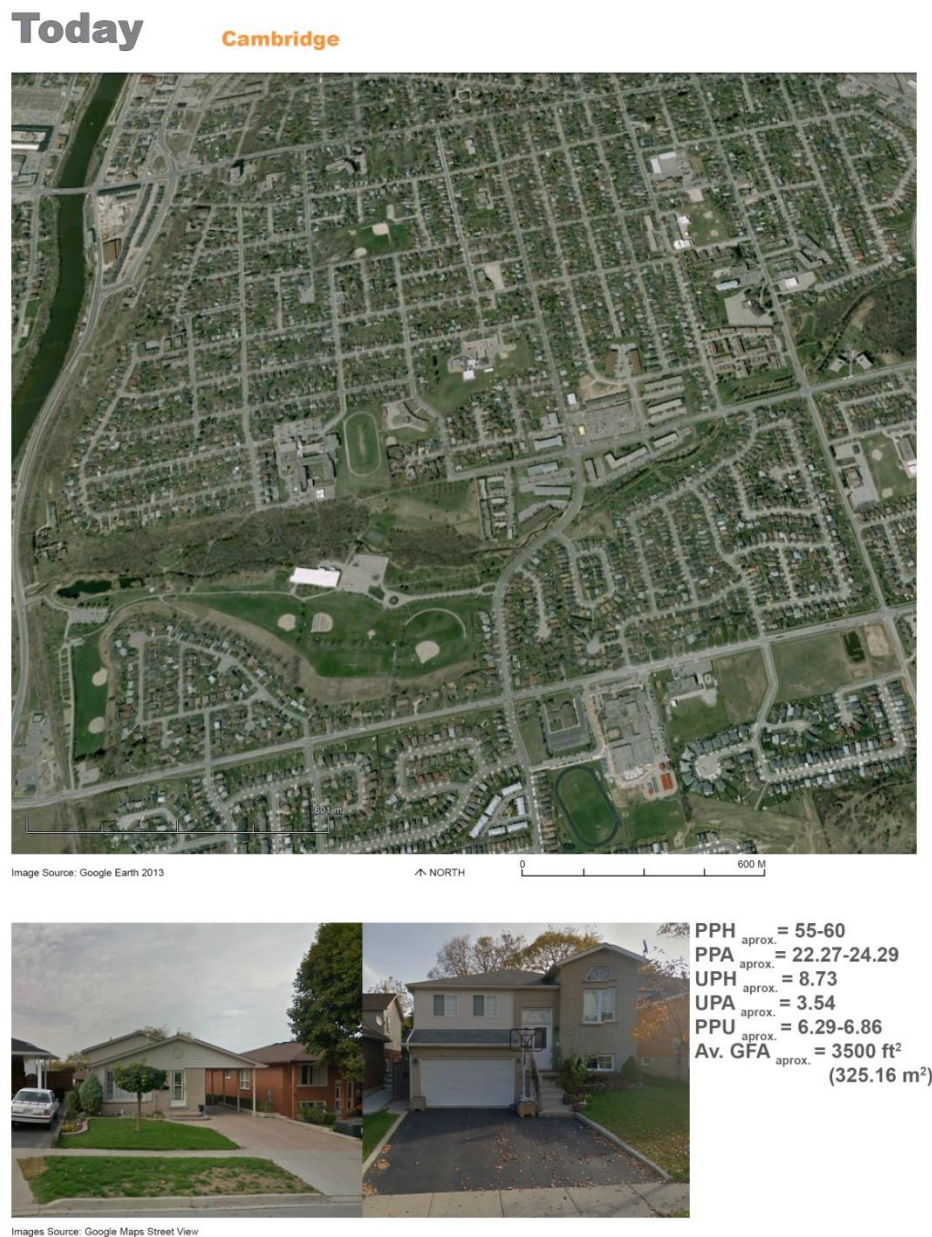
Images Source: Google Maps Street View

PPH <sub>aprox.</sub> = 41  
 PPA <sub>aprox.</sub> = 16.60  
 UPH <sub>aprox.</sub> = 8.21  
 UPA <sub>aprox.</sub> = 3.32  
 PPU <sub>aprox.</sub> = 4.99  
 Av. GFA <sub>aprox.</sub>  
 = 2,000-3,000 ft<sup>2</sup>  
 (185.81-278.71 m<sup>2</sup>)

The neighbourhoods that were built in the 1990s contain large houses (2,000–3,000 sq. ft.) with high lot coverage, but the densities are higher (about 41-43 persons per hectare). These neighbourhoods are furthest from the central areas in each city, but closer to suburban big-box stores in outlying areas. Those who bought in these areas when they were in their twenties and thirties are now in their forties and fifties, and may still have children living at home. Driving is a way of life in these neighbourhoods—for getting to work, taking the children to school, shopping, socializing, and recreation.



Image 4 – Waterloo Region housing patterns in the 2000s



Since the 1990s, planning policy and market trends have led to changes in development patterns. Intensification is increasing: in 2003, only about 13% of new residential growth was within the already built-up area; by 2013, this percentage had increased to 55%.<sup>27</sup> New development is denser (57–58 persons per hectare) and street layouts are once again

<sup>27</sup> Region of Waterloo, presentation by Rob Horne to the Canadian Urban Institute, October, 2013

more likely to be a modified grid. Houses average about 3,500 sq. ft. However, these subdivisions are likely furthest away from the centre of each city relative to older subdivisions.

The literature on aging is full of references to “aging in place,” but pays less attention to the neighbourhoods that people choose initially, and how these areas differ markedly in terms of their concessions to older residents. In previous generations, people in their twenties—who were more likely to buy houses and start families than those who are currently in their twenties are able to do today—would choose their housing for reasons such as affordability, size, and access to particular schools, which are among the most important criteria in house purchases at this stage of life. (Very few consider transportation costs as part of “affordability,” even though families in low-density areas may end up having to buy several cars to meet the needs of family members.<sup>28</sup>) Once the children are gone, the house may be too big and proximity to a certain school is no longer important. Nevertheless, the house and the neighbourhood are now familiar, and so in survey after survey, researchers have found that most people say they would prefer to stay put after retirement.

Not all do, of course. When the upkeep of a large house becomes too onerous or health problems make independent living unattractive, seniors do move. Some choose independent living arrangements; others go to retirement residences or nursing homes; others move in with other family members. The proportion of older adults—seniors over 65—in the Region is approximately the same as the Ontario average at just under 14%. Approximately 32,000 residents are between the ages of 65 and 74, meaning that the new dwellings available for purchase during their family-formation years were built in the 1970s, a house form and subdivision design that makes residents “car-dependent.” There are also about 44,000 residents aged 75 and over. Some may still occupy the small houses built in the 1950s that are close to shops and services.

This analysis suggests that not all generations aging in place will experience the same quality of life. Older adults who remain in homes built in the 1950s may benefit from a denser environment that is more walkable, closer to amenities, and accessible to public transport. However, for those who bought their homes in later decades, particularly in the 1970s and 1980s, aging in place could mean increased isolation, and a higher burden of home maintenance. This is because these residents are already more dependent on driving than those in the inner neighbourhoods, and as they give up driving (for one reason or another), there will be fewer options in terms of mobility.

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<sup>28</sup> E. J. Miller et al., *Travel and Housing Costs in the Greater Toronto Area: 1986-1996*, Neptis Foundation, 2004

## **4.3 Public Transportation**

Grand River Transit (GRT) manages the transit system in the Region of Waterloo, providing service to Kitchener, Waterloo, and Cambridge. GRT provides three types of transit services: (1) regular bus service, (2) express bus service, and (3) door-to-door service. The regular bus service has 66 routes many of which run perpendicular to the proposed rapid transit (RT) corridor. Standard fare is \$3/ride or \$72/month with reduced prices available for students and seniors (\$2/ride or \$60/month). Reduced fare riders must have an ID card distributed by GRT to buy or use tickets or passes. Local college and university students pay for transit with their tuition, and have access to the system using their student ID cards. These institutional agreements are an important source of revenue for GRT.

The RT corridor is well positioned to offer opportunities for Waterloo residents to live and work close to higher-order transit. Many of the Region's activity centres, retail facilities, employment areas, and postsecondary institutions are located in the corridor (see Map 6). There has also been a significant amount of high and medium-density residential development in the corridor in recent years. The Region is working with the area municipalities to coordinate the Regional Transportation Master Plan and Transit Network Redesign to improve network connectivity.

The conventional bus system that branches out from the corridor connects residential areas on either side of the RT corridor. These feed-in transit services are, therefore, underpinning the Central Corridor. Implementation of the recently approved RT project will further enhance land-use function and travel patterns in the region.

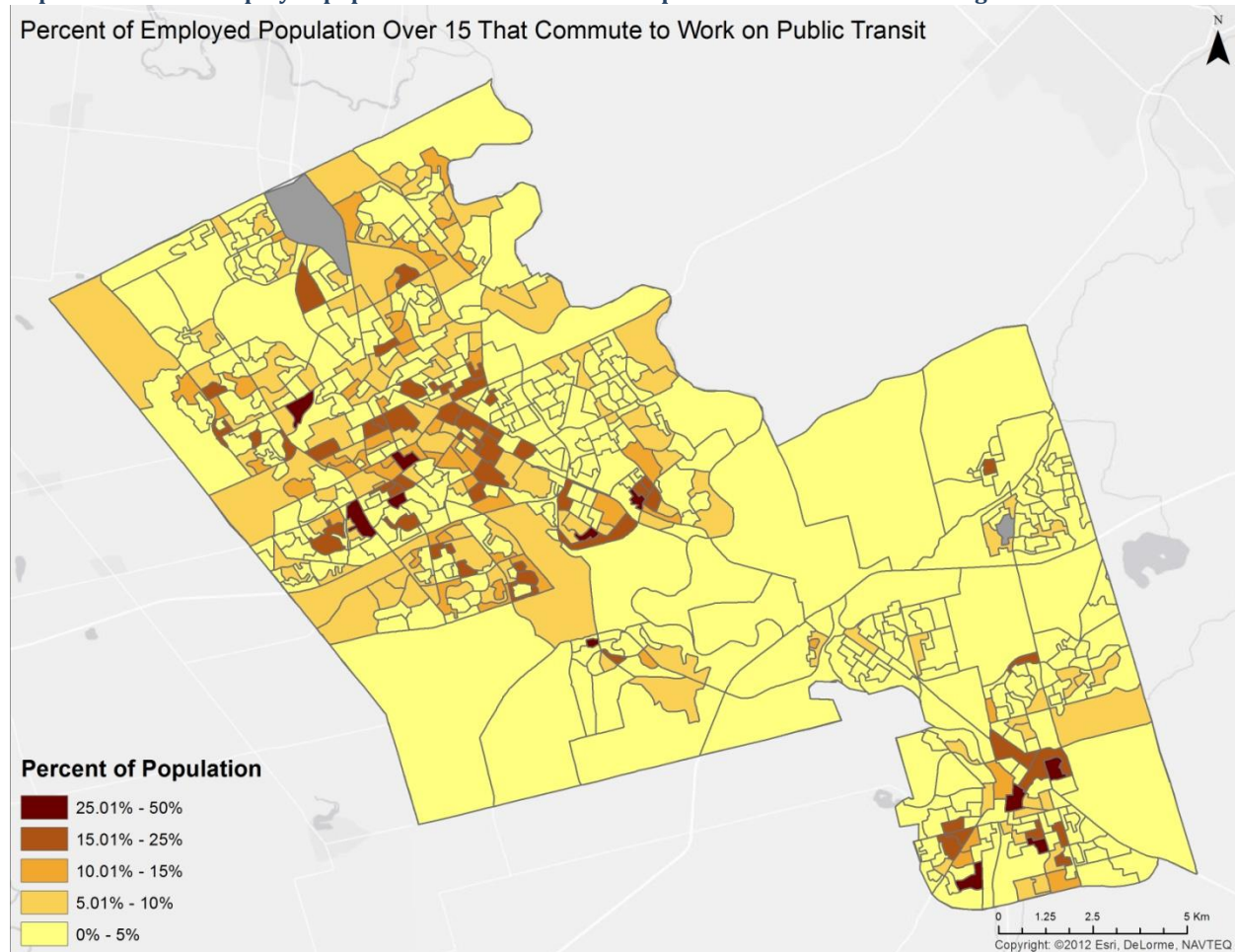
Despite a fairly good alignment of land-use with the RT corridor, the expected shift to transit is not yet under way. According to a screen-line survey conducted in 2006 in different parts of the Region, transit mode shift varies between 0 and 6%. Ridership in the RT corridor for passengers using the express bus routes is increasing over time, but at this point depends heavily on students. Ridership fluctuates with the school calendar, and some 60% of riders are aged 25 years or less.<sup>29</sup>

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<sup>29</sup> Region of Waterloo, A Target Transit Mode Share Strategy: Technical Memorandum # 1, 16 February 2010.

**Map 6 – Percent of employed population who commute with public transit in Waterloo Region**

Percent of Employed Population Over 15 That Commute to Work on Public Transit



According to the 2011 National Household Survey, the modal distribution for transportation in the Waterloo Region is:

- 87.86% Individual Motorized Transport (Cars, Trucks, Motorcycles, etc.)
- 5.64% Public Transit
- 4.57% Walking
- 1.14% Cycling
- 0.79% Other<sup>30</sup>

<sup>30</sup> StatsCanada 2011 National Household Survey Table 99-012-X2011064, retrieved from



Overall, these numbers show that Waterloo Region is more dependent on car travel than the provincial average (by approximately 10 percentage points). Transit ridership is also lower than the provincial average, as is the proportion of people walking and cycling. However, significant variation exists within the Region, depending on the availability of transit options. In areas with public transit options, as much as 11% of the population rides GRT buses, and in areas that favour walking and biking, these modes are much higher as well (up to 4% for cyclists and 15% for pedestrians).<sup>31</sup>

The development of the LRT/BRT corridor over the coming years will no doubt increase the modal share of transit. Planners forecast that the new line will serve 27,000 people a day when it opens, increasing to 56,000 by 2031.<sup>32</sup> This anticipated increase has already inspired residential and commercial development along the RT corridor.

For The Big Shift to happen across the Region, however, it will be necessary to attract riders of all ages and income groups, including working professionals and seniors in order to transcend the generally accepted social notion that transit is primarily for students.

A more encouraging analysis is offered by researchers at Queen's University in a study that examined cities across Canada with the aim of distinguishing between "urban" and "suburban" growth. The study identified four categories of neighbourhood, distinguished by the principal means of transportation. "Active Cores" are areas where walking or cycling are 1.5 times higher than the overall average of the CMA. These areas are found in downtowns and sometimes in secondary cores of major cities. The second category refers to "Transit Suburbs," which have higher transit use than the CMA average. The third category is "Auto Suburbs," which are suburbs where the dominant method of transportation is by car. The fourth category is "Exurban areas," which are low-density areas almost completely reliant on automobile transportation (areas that have less than 150 persons per sq. km).<sup>33</sup>

The study provides two maps of the Waterloo Region that reflect census results from 1996 and 2006 (see Map 7). These data suggest that the cities of Waterloo and Kitchener have managed to reduce their reliance on the automobile during that period, particularly in terms of the area identified as "transit suburbs."

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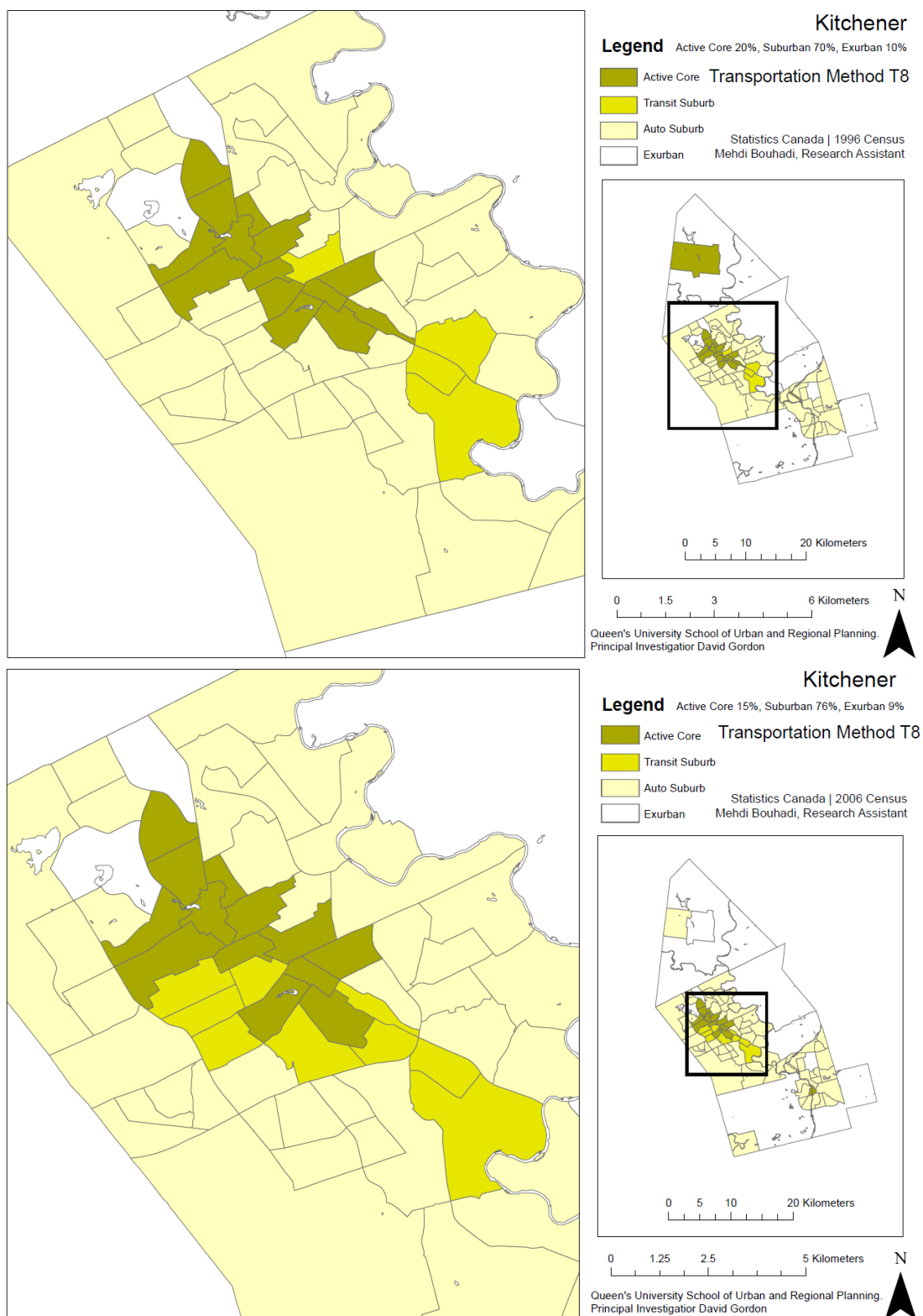
<sup>31</sup> Region of Waterloo Community Building Strategy Draft, January 23, 2013.

<sup>32</sup>[http://rapidtransit.regionofwaterloo.ca/en/projectinformation/frequentlyaskedquestions.asp?\\_mid\\_=26033](http://rapidtransit.regionofwaterloo.ca/en/projectinformation/frequentlyaskedquestions.asp?_mid_=26033)

<sup>33</sup> "Canada: A Suburban Nation and Its Changing Suburbs," 2013, David Gordon, MCIP, RPP, principal investigator, School of Urban and Regional Planning, Queen's University.  
[https://qshare.queensu.ca/Users01/gordond/Suburbs%202/canada\\_suburbs\\_change\\_overview.html](https://qshare.queensu.ca/Users01/gordond/Suburbs%202/canada_suburbs_change_overview.html)

Gordon's methodology could be useful to the Region over the long term as The Big Shift takes effect following development of the LRT and other planned changes.

**Map 7 – Areas of transit use in Waterloo Region, 1996 and 2006**



## **4.4 Age-Friendliness as Public Policy**

If there has not been strong demand for age-friendly transit networks to date, this may well be because of a perception in a culture long dominated by the car that transportation is an individual problem that each family must solve on its own. The lack of attention to an age-friendly built environment is not confined to the Region, and is typical of many large and mid-sized cities in Canada. Some seniors continue to drive past the point at which they are considered safe drivers, because they have no other options. Others get rides from family members and friends, take taxis, or simply curtail their activities. Families cobble together what solutions they can from the range of options available. There is no great expectation that a municipality will step in to help solve these problems, or provide new options. In this sense, the Region of Waterloo is showing considerable leadership in treating this issue as a public policy question.

What this means for the Region of Waterloo is that many (if not most) of its seniors are likely living in places that are not only the least “age-friendly” (in terms of walkability, access to shops and services, and appropriateness of housing stock), but also the least “transit-friendly,” that is, they are hard to serve with transit that is frequent,<sup>34</sup> convenient, and affordable.

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<sup>34</sup> Ministry of Transportation Transit-Supportive Guidelines suggest that 50 people and jobs per hectare can support one bus each half hour at reasonable cost, and many subdivisions in the Region are below that threshold density.

## **5. How to Plan for Seniors: Considerations and Criteria**

As the literature shows, less than 10% of older adults in communities the size of Waterloo Region are likely to take transit. For men aged 65–74, for example, the average rate of transit use drops to about 4%.<sup>35</sup> The propensity to take transit is closely linked to the degree to which an individual has relied on transit when he or she was young. Sandra Rosenbloom, a U.S. academic who has written extensively on this subject for the Transportation Research Board and the Brookings Institution, suggests that many older adults would rather stay home if they cannot drive or be driven by friends or family.<sup>36</sup>

### **5.1 Senior-Friendly and Transit-Friendly: Not Synonymous, but Potentially Complementary**

Although it might seem self-evident that the features that make a city or neighbourhood transit-supportive are also those that support seniors' use of transit, there are a few distinctions.

First, mass transit is designed around the needs of “masses”—the large numbers of people moving in particular directions at particular times. Planning for transit, like planning for every other form of transportation, understandably focuses on commuters travelling towards employment districts in rush hours. Seniors' travel patterns often differ, however, since people who are retired seldom need to travel at peak hours. A city or neighbourhood that supports commuting by transit may not necessarily offer non-working seniors what they need in a transit system. Conversely, a system that provides non-peak services to destinations other than major employment centres may be less affordable than mass transit.

Second, getting commuters to use transit means offering frequent and fast service. Although seniors appreciate speed and shorter wait times, these features may not be quite as important to them as safety and comfort. They may be willing to spend more time travelling,<sup>37</sup> provided the journey from start to finish is pleasant and safe.

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<sup>35</sup> “Profile of Seniors' Transportation Habits,” Martin Turcotte, Canadian Social Trends, Statistics Canada, 2012.

<sup>36</sup> Rosenbloom, Sandra. “The Mobility Needs of Older Americans: Taking the High Road,” Brookings Institution Press, 2003.

<sup>37</sup> Users of paratransit are familiar with delays, but since the service offers door-to-door convenience for little more than the price of regular transit, seniors and others who use the service generally accept the trade-off.

Third, transit journeys usually start and finish with a walk. Although transit planners strive to achieve coverage that means that most residents of a neighbourhood are within about 500 metres (half a kilometre) of a transit stop, even this distance may be too far for certain older seniors to walk comfortably.<sup>38</sup> This distance may be increased when service is reduced in certain areas. (The Region of Waterloo should consider developing a strategy as part of the GRT Business Plan to address service reduction in outlying neighbourhoods.)

Fourth, using transit involves wayfinding, navigation, route maps, and, in older systems, changes in levels by stairs or escalators. Although newer systems are required to be accessible and wayfinding systems are improving, travel by transit can place additional cognitive and physical demands on passengers, compared to being driven in a car, taxi, para-transit vehicle, or shuttle bus. And the more fine-grained and far-flung the transit system, the more complicated the information that must be assimilated.

Fifth, there may be an unintended consequence to improving transit friendliness—the increased popularity of transit may “crowd out” seniors, unless measures are put in place to ensure their access. Vehicles may become overloaded, so that some senior passengers may not get a seat. Space on accessible vehicles intended for wheelchairs or walkers may be taken up by ever-larger strollers and shopping buggies. Barrier-free paths free of steps may become routes for cyclists, rollerbladers, and skateboarders.

Finally, greater transit use by the general public has implications for the environment (particularly air quality), the reduction of congestion (with its economic costs), social equity, labour markets, and land use planning. Transit use by seniors is a smaller issue that has more to do with quality of life for seniors and those who might otherwise have to chauffeur them. For younger people, the choice is between transit and the car for trips that must be made; for seniors, the choice is sometimes between transit and simply not going out at all. The benefits of seniors’ transit use are felt by fewer people, and when transit is lacking, people come up with individual responses rather than demanding a public solution.

All of which is not to say that there are not important overlaps between age friendliness and transit friendliness. The following section describe five features of an age-friendly

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<sup>38</sup> In fact, the traditional method of measuring an as-the-crow-flies radius around a transit stop or transit hub (sometimes set at 500 metres, sometimes at 800 metres) overlooks the *actual* route that individuals must travel to reach the stop or hub, which may involve walks along curvilinear streets that extend the route, detours to cross a busy road or skirt a large institutional building, long walks made necessary by a lack of intersections, and so forth. For a new method that assesses the actual distance walked to reach a transit station, see “Assessing and Improving Walkability Conditions in the Vicinity of Suburban GO station areas,” Jacob Nigro, University of Toronto, unpublished M.Sc. Pl. paper, April 2014.

transit system—features that are, in fact, valued by *all* transit users, not just seniors, but can help ensure that a transit system appeals to older users.

## 5.2 Seniors and Transit: The Five A's

A paper prepared by the New York Academy of Medicine for Age-Friendly New York City<sup>39</sup> suggests that at least five attributes are needed to encourage seniors' use of transit.

1. **Availability:** seniors need transit mainly in the non-peak periods and their destinations are not usually workplaces, so transit that puts commuters first will not meet their needs.
2. **Accessibility:** the transit available must be close enough to be convenient to use, and when a vehicle arrives, seniors should be able to get on it easily.
3. **Acceptability:** the transit journey from beginning to end must be perceived as safe, comfortable, and pleasant—these experiences apply to transit stops and their surroundings as much as to vehicles; the attitude of transit staff is also a consideration.
4. **Affordability:** seniors should consider the cost worth the journey, for example, short trips in non-peak periods should cost less than long trips at rush hour; this type of differential pricing entails smart cards combined with smart pricing policies.
5. **Adaptability:** seniors who use walkers, wheelchairs, mobility scooters, or guide animals can use transit.

The first two (Availability and Accessibility) are necessary but not sufficient conditions for transit use by seniors, but represent considerable hurdles in lower-density suburban locations. The third (Acceptability) may well be the most important one of all—maybe even more important than affordability. Seniors who have a choice will not take transit regularly unless they find the experience acceptable. This means that the entire journey from start to finish—not just the vehicles themselves, but the transit stops and the walks to and from transit stops—must feel safe and comfortable.

The fourth (Affordability) is often overlooked or treated superficially. Transit companies regularly offer a reduced price senior/student ticket but this does not necessarily address the practical needs of older transit users. For seniors on a fixed income, taxis can be prohibitively expensive, or, at the least be *perceived* as expensive. The introduction of smart phone apps that remove the need to pay on the spot by establishing an account could potentially ease this burden. Seniors are increasingly tech-savvy, and the current 55–64

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<sup>39</sup> Complete Literature Review of the Age-Friendly Cities Domains,  
[http://www.nyam.org/agefriendlynyc/docs/Complete\\_Literature\\_Review\\_AFC\\_Domains.pdf](http://www.nyam.org/agefriendlynyc/docs/Complete_Literature_Review_AFC_Domains.pdf)

cohort will likely continue their use of smartphones as they age, opening up new possibilities for “on-demand” service.

The fifth issue (Adaptability) has typically been addressed by the costly means of transforming a transit fleet (buses and streetcars) to low floor vehicles. True adaptability goes beyond meeting the physical needs of an older customer, however, and could be expanded to include flexible routing at certain times of the day.

Finally, although the New York study does not mention it, the placement of certain public and municipal services can affect seniors’ use of transit. In a sense, travel demand management has a place in planning transit for seniors—they should be able to reach several destinations with one trip (not just, say, a medical clinic, but the clinic plus shops and other services). Planning for and siting of municipal services does not usually include consideration of access to commercial services, but in an age-friendly community, it should. For example, now that libraries are becoming “information hubs” rather than simply repositories of books, they could house additional services to serve seniors who use them. Manchester, UK, has incorporated this concept into its age-friendly plan. Intensification of transit corridors offers opportunities to cluster services in this way.

A survey carried out in Chicago and published in a Canadian journal in 2008<sup>40</sup> asked seniors what they considered most important factors in making the switch to transit. The responses were divided into low-technology and high-technology features. Of the former, the top three were:

1. Information on schedules
2. Greater frequency of services
3. Special routes for seniors.

And the two top high-technology features were:

1. Real-time information on wait times at transit stops (overwhelmingly)
2. Low-floor buses.

From our study of other cities, we looked for elements of the five A’s in the delivery of transit.

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<sup>40</sup> Taha H. Rashidi and Abolfazi (Kouros) Mohammadian, Effectiveness of Transit Strategies Targeting Elderly People. Canadian Journal of Transportation Volume 2, Part 1 (2008).







potential barriers. Taking an age-friendly (Universal Design) approach to these audits could add further insight. The NEWPATH research project conducted in 2009 by the Region of Waterloo<sup>43</sup> provided a snapshot of its built environment and described the variation in travel patterns and walkability rates. The study enabled the Region to work with local municipalities to develop Age-Friendly Pedestrian Focus Areas to increase the walkability in strategic areas.

Several cities have upgraded transit stops to make them more accessible to seniors. In Winnipeg and Ottawa, major transit waiting areas are enclosed and heated. The shelters are larger and have plenty of seating.



**Image 6 – Hurdman Station, Ottawa<sup>44</sup>**

Ottawa’s major transit hubs are more elaborate and include convenience shopping in some cases, as well as detailed maps, real-time information on bus arrivals, and extra seating.

The value of well-designed transit stops cannot be overstated. Each one has the potential to be a small information hub. Too often, the space is given over to advertising (which can interfere with sight lines), and there is inadequate information on the transit system itself. Maps, schedules, and fare information should be available, at the very least, and as the Chicago study showed, real-time information on wait times is considered very important. The Region of Waterloo is considering the “information hub” approach to bus shelters

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<sup>43</sup> Region of Waterloo, Planning, Housing and Community Services, Transportation Planning, Public Health, and Healthy Eating and Active Communities, NEWPATH Research Project, Report: P-14-021/PH-14-006, February 11, 2014.

<sup>44</sup> <http://upload.wikimedia.org/wikipedia/commons/1/13/Ottawa-hurdman-station-2009-06-06.JPG>

where straightforward navigation information is available. The Region may also wish to expand the use of heated shelters and consider additional streetscaping around high priority bus stops to create a sense of place.

A new pilot project for bus stops in Paris offers a model of transit information with area maps, system maps, route maps, and real-time information, along with seating and shelter. The city is even experimenting with adding WiFi, bike rentals, bus ticket sales, and other amenities at enlarged transit stops. Currently, in Waterloo, the iXpress stop provides real-time information.

Expanding this approach to the rest of the system would likely improve the user experience of older adults living in less accessible neighbourhoods.

Arlington County, Virginia, provides easy-to-read maps and schedules in its transit stops. This feature should not

be overlooked—paper versions of the current Waterloo transit map are quite complicated and require familiarity with the system.<sup>45</sup> However, the Region provides transit information in other formats including text messages, phone, and Google transit; a commitment to continuous improvement will likely be able to address this issue.

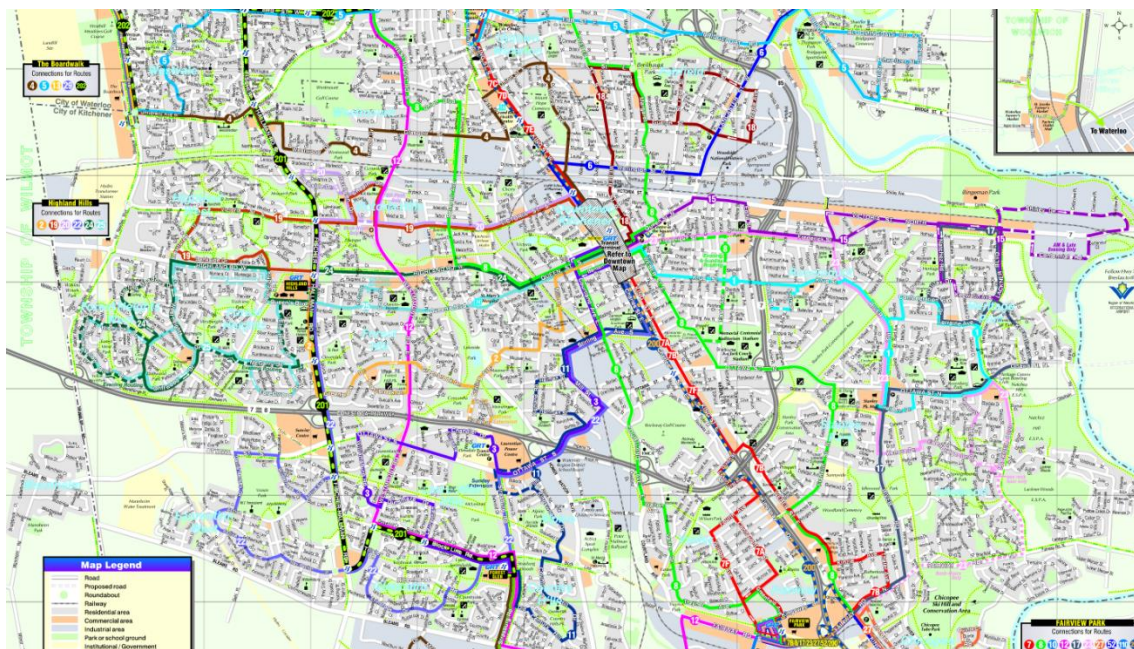
Developing a communications program that makes navigating the system more straightforward is crucial if seniors are to become regular users.



Image 7 – Expanded Paris bus stop near the Gare de Lyon

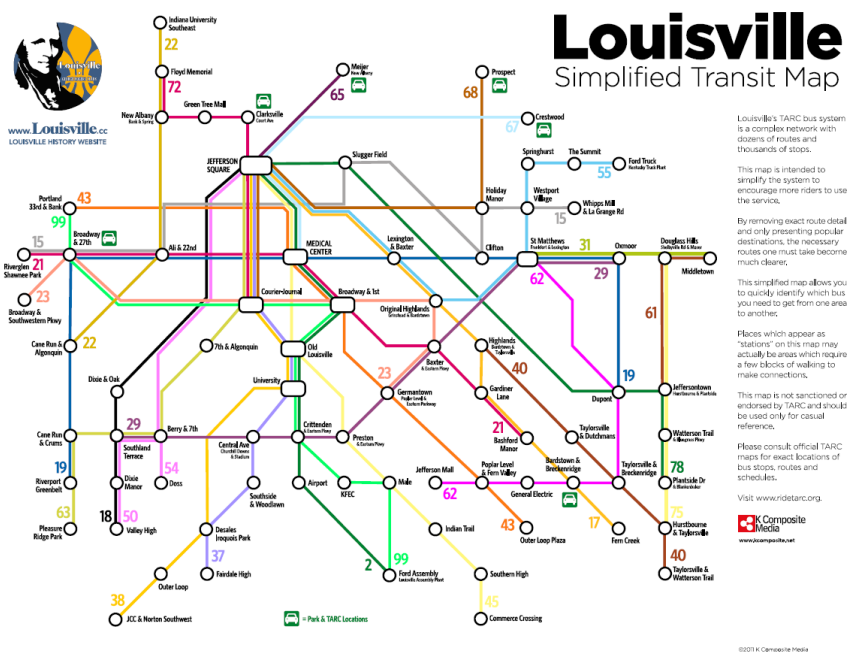
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<sup>45</sup> Source for Image 7: [http://switchboard.nrdc.org/blogs/kbenfield/what\\_if\\_bus\\_stops\\_were\\_designe.html](http://switchboard.nrdc.org/blogs/kbenfield/what_if_bus_stops_were_designe.html)



**Image 8 – A portion of the current Grand River Transit route map: information overload**

Simplified maps sacrifice background detail and focus on routes, landmarks, and major destination.



**Image 9 – Simplified transit map for Louisville, Kentucky<sup>46</sup>**

<sup>46</sup> <http://www.louisville.cc/tarc/Louisville%20Simplified%20Transit%20Map.pdf>



## Acceptability

The importance of safety and comfort cannot be overstated in transit for seniors. And perhaps the first element is the training of transit staff. Seniors may try transit once, but they will not return if the experience leaves them feeling rushed, confused, or helpless. From Mississauga to Munich, cities are training drivers and conductors to deal with elderly passengers appropriately. In New York City and Adelaide, Australia, training extends to taxi drivers. The City of Leeds in the U.K. developed a “full quality package” in the early 1990s that included staff sensitivity training, better signage, more places to rest and—an innovation at the time—allocating available low-floor buses to corridors serving a concentration of seniors. The proportion of seniors using transit jumped from 2% to 12% in a short period.<sup>47</sup>

Two key elements in making transit acceptable to seniors are cleanliness and good lighting on vehicles and in transit stops and hubs. These are rarely featured as special elements in age-friendly initiatives, but dirty, dimly lit facilities will not encourage older adults (at any age) to make the shift to transit. In Waterloo Region, bus stops located at intersections are usually well lit by streetlights.

The walking environment is also important in making transit acceptable to seniors. Arlington maintains a requirement for six-foot-wide sidewalks in commercial areas, which allows room for walkers and mobility devices, as well as making the walking experience feel less cramped.

**Image 10 – A New York covered and lighted pedestrian walkway**



In the Region of Waterloo, the Context-Sensitive Regional Transportation Corridor Design Guidelines functions as a complete street guideline for regional roads. These guidelines emphasize prioritizing sustainable and active transportation and recommend a pedestrian clearway width between 2.1

<sup>47</sup> “Mobility Impaired: Mobility Repaired, – Are Planners Ready for an Aging Society?” presentation to the 2006 CIP Conference, Vancouver, B.C. Glenn Miller and Gordon Harris.

metre and 3 metres on main streets wherever feasible.

Ottawa provides covered pedestrian walkways in certain parts of its Bus Rapid Transit network. New York is also creating attractive covered pedestrian walkways. Again, width is important to allow for comfort and ease of use. In communities where “freeze and thaw” conditions apply like Ottawa, the city allocates operational funds to ensure that sidewalks and bus access points are in good condition to avoid problems for people with walkers and wheelchairs. In Waterloo Region, currently, there are no covered pedestrian pathways and although the municipality provides funds to keep transit stops clear, the results are inconsistent. There is a need for the Region to develop stricter targets or use incentive based funding for snow clearing at transit stops. Implementation of the Active Transport Master Plan which is part of the Winter Network Action Plan will also be beneficial.

Crosswalks and intersections are also crucial in the experience of walking to and from transit. In Portland, Oregon, motion sensors allow seniors the time they need to safely cross a road. Elsewhere, such as in New York and Los Angeles, adjusting the general timing of crosswalks has been implemented to ensure seniors’ safety. The Region is expected to continue to expand its use of pedestrian countdown signals.

New York’s Safe Streets for Seniors Program has led to a drop in senior fatalities. According to the Department of Transportation website: “Since launching the program in 2008, DOT has addressed senior pedestrian safety issues in 25 Senior Pedestrian Focus Areas (SPFAs) in the five boroughs. The SPFAs were selected based on the density of senior pedestrian (age 65+) crashes resulting in fatalities or severe injuries in a five-year period. Since the program began, annual senior pedestrian fatalities have decreased 19% citywide, from 58 senior fatalities in 2008 to 48 in 2012.”<sup>48</sup>

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<sup>48</sup> <http://www.nyc.gov/html/dot/html/pedestrians/safeseniors.shtml>



Before and after images of Creston Street in the Bronx, showing modifications

Image 11 – Safe Streets for Seniors, New York City<sup>49</sup>



Image 12 – Artist's impression of a "slow-speed environment" in Adelaide

The New York initiative includes constructing pedestrian safety islands, widening curbs and medians, narrowing roadways, and installing new stop controls and signals. The Region of Waterloo plans to continue to implement the Context-Sensitive Regional Transportation Corridor Design Guidelines which recommends using pedestrian islands, reducing turning radii, curbing bump-outs, and

increasing pedestrian countdown signals. The transportation planning department has recommended locations for pedestrian refuge islands and the Region has established a budget for retrofitting existing roads with refuge islands.

Adelaide, Australia, has a similar program to that in New York, in its creation of a “slow-speed street environment” in certain locations, with wider pavements, street trees, seating, alternative road surfacing, and enhanced lighting. Hindley Street is currently being converted (construction started in fall 2013) to improve walkability in this area. In Waterloo Region, the Context-Sensitive Regional Transportation Corridor Design

<sup>49</sup> <http://www.nyc.gov/html/dot/html/pedestrians/safeseniors.shtml>

Guidelines recommends using narrower lane widths and design speeds closer to the posted speed limit to create a slow-speed street environment. Continuing to implement slower speed roadways in urban areas and to utilize landscaping to calm traffic will likely improve walkability for residents of all ages.

Another element of New York City's age-friendly initiative includes the addition of public restrooms in key locations.

Finally, Krakow in Poland has a program that involves volunteers who help seniors at transit stops, providing information and physical support as needed.<sup>50</sup> Through the creation of a Transit Ambassador Training program (with active seniors, high school students and Conestoga College students), Waterloo region intends to begin a similar program.

### ***Affordability***

It is common to reduce fares for seniors on transit, but some jurisdictions have experimented with making seniors' travel free at certain times or on certain routes.

In Ottawa, seniors ride free on Wednesdays. In Oakville, seniors ride free on Mondays. A program in Chicago that allowed free travel for seniors was discontinued because of high costs, although it clearly boosted ridership.<sup>51</sup> However, rides remain free for those with a disability. In the United Kingdom, the government introduced free bus travel for all adults aged 60 and older in 2006.<sup>52</sup>

Another approach, used in Adelaide and Denver, is to make certain routes free to everyone. Adelaide also allows seniors to travel free in non-peak periods.

The ideal is probably smart cards that allow for smart pricing, such as the Oyster card used in Transport for London's system. Smart pricing means that seniors do not overpay for short trips and this feature can be combined with time-of-day pricing that encourages off-peak travel.

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<sup>50</sup> Source for Image 12:

[https://dl.dropboxusercontent.com/u/93348115/Hindley%20Street%20Detail%20Design%20Report\\_31May13ACC.pdf](https://dl.dropboxusercontent.com/u/93348115/Hindley%20Street%20Detail%20Design%20Report_31May13ACC.pdf)

<sup>51</sup> <http://www.utc.uic.edu/research/reports/RTARideFreePrograms.pdf>

<sup>52</sup> The entitlement was later changed to people 65+ as a cost-saving measure, and there has been pressure to make access to free bus passes subject to a means test.



## Adaptability

Low-floor transit vehicles and “kneeling” buses are becoming increasingly common in Toronto, Winnipeg, Edmonton, and many other North American cities. Grand River Transit’s fleet is now 100% low-floor.

Low-floor buses are usually able to handle wheelchairs and people using walkers. However, as more seniors opt for mobility scooters, regular transit may not be feasible, and paratransit vehicles are required. Grand River Transit Mobility Plus is equipped to carry mobility scooters; the demand for this service may increase with the aging population.<sup>53</sup>

Image 13 – Accessible bus in



Mobility scooters raise a range of issues about seniors’ travel. Users do not need to be licensed or registered, so the extent of their use is hard to track. For seniors who are accustomed to driving, scooters may represent an acceptable alternative to cars for short trips. Manufacturers are creating a range of models, some of them fully enclosed, and the size of the largest is approaching the size of SmartCars. Top speeds can be about 10km/h, which is too fast for sidewalks and too slow for roads, creating questions of safety.<sup>54</sup> A psychogeriatrician in Ontario has noted the irony that seniors who have had their driving licenses removed by the Ministry of Transportation can still acquire a mobility scooter and return to the streets even though they are considered unsafe to drive a car.<sup>55</sup> Developers and owners of retirement homes and seniors-only housing have also begun to retrofit properties to accommodate the growing use of scooters and to provide for scooter plug-ins and access in new projects.



Image 14 – Fully enclosed mobility

The five “A’s” of seniors’ transit—availability, accessibility, acceptability, affordability, and adaptability—would, in a perfect world, provide transit that serves everyone’s needs, just as Universal Design benefits all, not just the elderly or disabled. However, trade-offs need to be made, particularly between affordability and the other four “A’s”—affordability not just for seniors, but for the transit provider itself. For example, adding more vehicles and routes while ensuring safety and cleanliness drive up labour and other costs. However, better transit benefits all residents of a city or region, and in the context of The Big Shift, the five “A’s” characterize well-managed transit that can become a habit for everyone.

<sup>53</sup> Source for Image 13: [http://en.wikipedia.org/wiki/File:B-NPTS\\_Gillig\\_Low\\_Floor.jpg](http://en.wikipedia.org/wiki/File:B-NPTS_Gillig_Low_Floor.jpg)

<sup>54</sup> In October 2013, a woman on a mobility scooter was killed in a collision with a truck in Toronto.

<sup>55</sup> Dr Ian Ferguson, “Mobility under attack,” Ontario Planning Journal, 2008. Image 14 source: <http://www.wayfair.com/Shoprider-Flagship-Enclosed-Cabin-Scooter-889XLSN-SRD1010.html>



### 5.3 Six Types of Indicators for What Makes for an Age-Friendly Community

While the WHO's criteria for age-friendly communities have become the international standard, it is not the only, or necessarily the best model of its kind for communities wishing to improve the built environment for the benefit of seniors. A 2008 CMHC research report titled *Smart Growth, Livable and Sustainable Communities for Seniors* identified the following six features of a successful seniors' community:

1. Neighbourhood walkability
2. Transportation options
3. Access to services
4. Housing choice
5. Safety
6. Community engagement in civic activities.

These features provide a more comprehensive, concrete set of indicators that communities can use to assess and improve their levels of age friendliness. While each is more complex than the WHO's criteria, it is also more comprehensive. For each feature, the researchers developed indicators that can be used to determine whether a community can be considered appropriate for seniors. The indicators are listed in the following table.

#### Features of A Sustainable Community for Seniors

##### Neighbourhood Walkability

1. Proportion of housing within walking distance (500 m ) of public transportation.
2. Average distance between pedestrian resting places (for example, benches) along sidewalks.
3. Proportion of streets, by kilometre, categorized as streets with sidewalks on both sides, sidewalk on one side and no sidewalk.
4. Proportion of sidewalks (by kilometre) in good repair—that is, no badly cracked or broken pavement.
5. Average number of walk trips per day, per week, per month by residents 65 years old or older (local government should categorize by destination, season, length, time of walk).
6. Annual number of pedestrian injuries and fatalities from accidents with automobiles, categorized by victim age, season and reason for accident.
7. Proportion of sidewalks cleared during or after a snowfall or freezing rain.

##### Transportation Options

1. Proportion of residents 65 years old or older who travel every day, once a week, once a month, or never, categorized by mode of transportation, destination and season.
2. Average number of trips taken on public transportation every day, once a week, once a month by residents 65 years old or older.

3. Average number of times a week that residents 65 years old or older report staying at home because of lack of transportation.

### **Safety**

1. Proportion of residents 65 years old or older who report feeling safe or unsafe in their neighbourhood, categorized by time of day, location, and reason(s) for feeling unsafe.
2. Proportions of streets, pedestrian routes (by kilometre), bus stops, public places and retail areas that lack adequate lighting for walking at night.
3. Annual number of slip-and-fall injuries on sidewalks and in public spaces, categorized by: season, type of injury and place of fall.
4. Number of reported street crimes against residents 65 years old or older, categorized by type of crime, location of crime and time of day.
5. Availability of wayfinding systems or safety features at crosswalks (that is, crossing times that allow seniors to cross the streets, clear signage, visible sight lines, audible crossing signal for the visually impaired, safe design).

### **Housing Choice**

1. Proportions and numbers of residences in the community categorized by housing type: multi-family, single-family, duplex, townhouse, rowhouse, mobile home, FlexHousing<sup>TM</sup>, garden (granny) suites, accessory dwelling units and other (could be further categorized by new versus existing housing stock).
2. Occupancy rates at existing lifestyle retirement housing, seniors residences and supportive housing.
3. Types of tenure available in the community—freehold homeownership, rental, condominium, co-operative housing, co-housing, leaseholds, shared equity ownership, life leases, life tenancies, flexible tenure.
4. Proportion of residents 65 years old or older who spend 30 per cent or more of their before-tax household income on housing.
5. Proportion of residents 65 years old or older living in housing with unmet home modification needs (such as, narrow hallways, unsafe stairs, lack of bathroom grab bars, inadequate lighting).
6. Proportion of households living in “acceptable” housing (meeting adequacy, suitability and affordability standards) in the community, categorized by age cohort.

### **Access to Services**

1. Proportion of housing within walking distance (500 m) of the following basic services: pharmacy, grocery store and bank.
2. Proportion of housing within walking distance (500 m) or within a 10 minute drive by car or public transit trip to the following services: pharmacy, grocery store, bank, hospital, senior centre, retail shopping.
3. Proportion of residents 65 years old or older who require assistance from family members or other individuals to access the following services: pharmacy, grocery store, bank, hospital, senior centre, retail shopping, libraries and community halls.
4. Proportion of residents 65 years old or older who have access to home delivery of groceries and other retail goods.

### **Community Engagement**

1. Proportion of residents 65 years old or older who engage in social activities at least once a week. Activities may include: meeting with friends/neighbours, engaging in civic, religious, or cultural activities and volunteer or part-time work.
2. Proportion of residents 65 years old or older who are able to access a dedicated senior centre or other place of interest, such as a library or community centre.
3. Local government has land-use policy and planning programs that specifically engage seniors.

Source: *Community Indicators for an Aging Population*, CMHC Research Highlight, Socio-economic Series 08-014, July 2008, <http://www.cmhc-schl.gc.ca/odpub/pdf/66099.pdf>

The researchers identified these features through a literature review on housing for seniors, and tested using focus groups in two communities—Mississauga, Ontario, and Squamish, British Columbia. Some of the indicators draw on existing data from the census or local planning departments, others require surveys of local residents.

The report noted, “Many planning and zoning changes needed to facilitate housing strategies that meet smart growth and liveable community goals are the same as those needed to support aging in place.”<sup>56</sup> Waterloo’s efforts to comply with the requirements of the Growth Plan for the Greater Golden Horseshoe are therefore likely to support its efforts to become more age-friendly.

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<sup>56</sup> Community Indicators for an Aging Population, CMHC Research Highlight, Socio-economic Series 08-014, July 2008, <http://www.cmhc-schl.gc.ca/odpub/pdf/66099.pdf>

## **6. Case Studies: Cities**

We chose the six case studies presented here from a scan of 54 cities on the basis of the following criteria:

- Successful implementation of transit
- Complementary age-friendly initiatives
- Comparability to Waterloo's situation (scale, urban form, population, location)
- Length of time in place: long enough to show results, but not so long that there is no need for residents to shift travel patterns

The six urban areas chosen for further study are: Adelaide (Australia), Arlington County (Virginia, USA), Manchester (UK), Ottawa (Ontario), Portland (Oregon, USA), and Winnipeg (Manitoba). Through our examination of these cases, we can derive practical insight to complement the strategies outlined in the previous section.

## 6.1 Portland, Oregon

### *Why We Chose It*

Portland, Oregon, has made well-documented efforts to foster dense, transit-oriented development and has inspired other cities, as far afield as Adelaide in Australia. The city is well known for its progressive urban planning, including instituting one of the greatest efforts to transition from a car-dependent to a transit-oriented city in North America. In addition, the city has been on the forefront of age-friendly initiatives, although not to the scale of its transportation planning. As a highly influential case, examining Portland's



Image 15 – A mixed-use neighbourhood in Portland, Oregon

experience in both of these areas provides valuable insights applicable to the Waterloo region.

### *What We Found*

#### **Transit**

Portland's 2040 Growth Management Strategy, developed in the early 1990s, envisions a region oriented around transit, with the built environment and rail links working together to create a region where private cars are not only unnecessary, but also less desirable than other forms of transport.<sup>57</sup>

Beginning operations in 1986, Portland's TriMet LRT<sup>58</sup> became an integral part of the Strategy's transit goal; it was part of an attempt to reinvent and revitalize the city. The initial LRT line, known as the Blue Line, provides service to the 36-block (then 22-block) Portland Mall, a large-scale pedestrianized area in the city centre.

Although Portland's LRT has been a model for many cities' transportation plans, it is not an unqualified success. In the 25 years since the beginning of LRT operation in Portland, the region has seen increases in ridership, and a reorientation of development towards transit lines. However, it is unclear how successful these efforts have been at moving people away

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<sup>57</sup> Image 15 source: [http://farm6.staticflickr.com/5018/5465869550\\_45aba54955\\_o.jpg](http://farm6.staticflickr.com/5018/5465869550_45aba54955_o.jpg)

<sup>58</sup> <http://trimet.org/pdfs/publications/factsheet.pdf>

from their cars.<sup>59</sup> In studying the effectiveness of Portland's transit-oriented development, researchers have identified the following outcomes.

**Table 2 – Age distribution by census tract for Portland, Oregon<sup>60</sup>**

<b>Age Distribution</b>	
Age Cohort	Percentage Growth 2000-2010
<b>Total Population</b>	
0-44	7.38%
45-54	1.37%
55-64	73.94%
65-74	18.86%
75+	-6.88%
<b>LRT Accessible*</b>	
0-44	7.83%
45-54	-2.17%
55-64	76.31%
65-74	18.72%
75+	-10.65%
<b>Not LRT Accessible**</b>	
0-44	6.99%
45-54	4.61%
55-64	71.82%
65-74	18.97%
75+	-3.27%

\* within 800 metres of an LRT station

\*\* not within 800 metres of an LRT station

First, Portland has effectively eradicated more than 62 million car trips a year, which means car use is growing at the slowest rate anywhere in the United States.<sup>61</sup> However, these numbers are based on projections that assume the same population growth in the city as experienced to date. It is unclear, therefore, whether car use would have grown any faster had the LRT not been built.

Second, while the city has seen a dramatic increase in transit usage (130% between 1986 and 2009), a modest 2.1% of regional traffic uses public transportation, and commuting ridership share is dropping.<sup>62</sup>

Finally, TriMet carries a high proportion of travellers (up to 25%) within the specific areas it covers, but much lower numbers elsewhere.<sup>63</sup>

Census data show that the greatest increase in public transport use comes from new residents.<sup>64</sup>

Portland also has a defined Urban Growth Boundary that focuses growth in transit centres and corridors, although commentators have noted that this

boundary is subject to change. Changes in zoning codes and municipal plans have reduced required parking ratios, rezoned areas for higher density, and encouraged mixed use in TOD areas. State-level property tax abatement for TOD projects (for 10 years, starting in

<sup>59</sup> [http://onlinepubs.trb.org/onlinepubs/circulars/ec058/07\\_LIGHT%20RAIL%20TRANSIT%20AND%20TRANSI-ORIENTED%20DEVELOPMENT.pdf](http://onlinepubs.trb.org/onlinepubs/circulars/ec058/07_LIGHT%20RAIL%20TRANSIT%20AND%20TRANSI-ORIENTED%20DEVELOPMENT.pdf)

<sup>60</sup> American Census for 2000 and 2010, 100% SF1 data for all census tracts in Portland, OR.

<sup>61</sup> <http://news.bbc.co.uk/2/hi/programmes/newsnight/4777801.stm>

<sup>62</sup> <http://www.newgeography.com/content/00818-portland-a-model-national-policy>

<sup>63</sup> TriMet "Facts About Trimet," retrieved from: <http://trimet.org/pdfs/publications/factsheet.pdf>

<sup>64</sup> Anderson, Michael. "Low-car households account for 60% of Portland's growth since 2005," BikePortland.org. Posted July 30<sup>th</sup>, 2013. Retrieved from: <http://bikeportland.org/2013/07/30/low-car-households-account-for-60-of-portland-growth-since-2005-91282>

1995), have contributed to changes. Between 1996 and 2006, public transport use has gone up by 65% and the city has managed to avoid a predicted 40% increase in congestion.<sup>65</sup>

The Westside expansion, developed in the mid-1990s, has included planning with local developers to ensure a number of new TODs, including the celebrated Orenco Station Centre.<sup>66</sup>



Image 16 – A Portland LRT Car

### ***Age-Friendliness***

Portland has been at the forefront of the age-friendly movement since 2006, with its participation in the WHO's initial Global Age-Friendly Cities Project. The city published findings for the project in 2007. In 2011, Portland was awarded membership in the WHO's Global Network of Age-Friendly cities. By April the following year, Portland City Council approved its new development trajectory plan which looked ahead to 2035. This new Portland Plan created the Age-Friendly Portland Advisory Council which in turn developed the *Age-Friendly Portland Action Plan* which was approved by Portland City Council on October 8, 2013. The primary goal of the Portland Plan—the City's newly-developed strategic plan—is improving equity for all residents of all ages.<sup>67</sup>

In 2011, TriMet released its Pedestrian Network Analysis report, which assesses the state of the tri-county region. A specific goal outlined in the report concerns accessibility for all pedestrians; the network analysis should seek to “address the needs of seniors, people with disabilities, the economically disadvantaged, and school children.”<sup>68</sup>

The City adopted its age-friendly plan in October 2013, therefore it is too soon to evaluate the plan's effectiveness. Portland's transit is already fully accessible including: streetcars,

<sup>65</sup> Warsi, Sayeeda. “Where the car is not king,” BBC News Online. Posted 15 August, 2006. Retrieved from: <http://news.bbc.co.uk/2/hi/programmes/newsnight/4777801.stm>

<sup>66</sup> TOD Advocate. “TOD Case Study: Portland, Oregon—Westside MAS Light Rail Project Transit Oriented Development (TOD) Program.” Retrieved from: <http://www.todadvocate.com/pdxcasestudy.htm>  
Image 16 Source: <http://upload.wikimedia.org/wikipedia/commons/8/82/PortlandStreetcar5.jpg>

<sup>67</sup> Age-Friendly Portland Action Plan available at [http://www.pdx.edu/ioa/sites/www.pdx.edu.ioa/files/Age-Friendly%20Portland%20Action%20Plan%2010-8-13\\_0.pdf](http://www.pdx.edu/ioa/sites/www.pdx.edu.ioa/files/Age-Friendly%20Portland%20Action%20Plan%2010-8-13_0.pdf)

<sup>68</sup> TriMet, Pedestrian Network Analysis, September 2011, p. 5. Retrieved from: <http://trimet.org/pdfs/pednetwork/trimet-pedestrian-network-analysis-report.pdf>



buses, MAX light rail, and WES commuter rail. However, the Action Plan does acknowledge that not all transit stops are accessible and this issue needs to be addressed.<sup>69</sup>

### ***Older Adults Moving to Portland's Transit-Oriented Areas***

In order to test the popularity of the transit-oriented, walkable areas for older adults, we performed a buffer analysis, in which we compared the change in the population by age cohort for the last two American Censuses for tracts within a “walkable” distance from a metro station (defined at 800 metres, or approximately ½ mile), and those that are not. Our results show that the population of those in the “senior” cohorts of 65–75 and 75+ are actually growing more in non-walkable areas than in walkable, as shown in Table 2. However, the fastest growing group in walkable areas are in the 55–64 year old cohort, where we see a 76.3% increase, not only the highest percentage growth of any age group, but also the biggest difference from the growth rate of the same group in non-walkable areas, where the rate is almost 4.5 percentage points lower. This “seniors in training” cohort is more likely to be mobile than the older groups, but is already thinking about what they will need as they grow older.<sup>70</sup>

### ***What We Learned: Transferable Ideas***

First, Portland's LRT system has been “successful” in that it sees *relatively* high ridership compared with other U.S. cities.<sup>71</sup> However, it is unclear whether it is affecting a larger transition away from cars. On the other hand, a high percentage of new Portlanders have less than one car per household resident. This raises the question of whether a city investing in transit does so in the hopes of getting current residents to leave their cars at home, or whether they wish to attract a transit-friendly population in the future. If the former is not possible, it may be difficult to get enough buy-in to have the level of financial and policy commitment needed to truly make The Big Shift. Portland has seen significant resistance from its citizens to its policy of focusing on transit over roads, partially for this reason. The Region of Waterloo, understands that behaviour change is difficult to achieve and has made a commitment to implement the TravelWise Individualized Marketing program<sup>72</sup> which aims at providing sustainable transportation information to people

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<sup>69</sup> TriMet, “Riders with Limited Mobility,” Retrieved from: <http://trimet.org/access/mobility.htm>.

<sup>70</sup> 2000 and 2010 United States Decennial Census SF1 100% data, tract-level for the Municipality of Portland, Oregon, retrieved from [americanfactfinder.gov](http://americanfactfinder.gov).

<sup>71</sup> “Portland compares favourably with other US cities in its use of transit (amongst the top 3-5 cities), but its performance hardly stands out and pales in comparison with transit usage in European and Asian cities.” Andrew Allan, Land Use Planning and its Role in Transforming the Adelaide-Gawler Line into a Transit Corridor of Connected Transit Oriented Developments, *Australasian Transport Research Forum 2011 Proceedings*, 28-30 September 2011, Adelaide, Australia, p. 13.

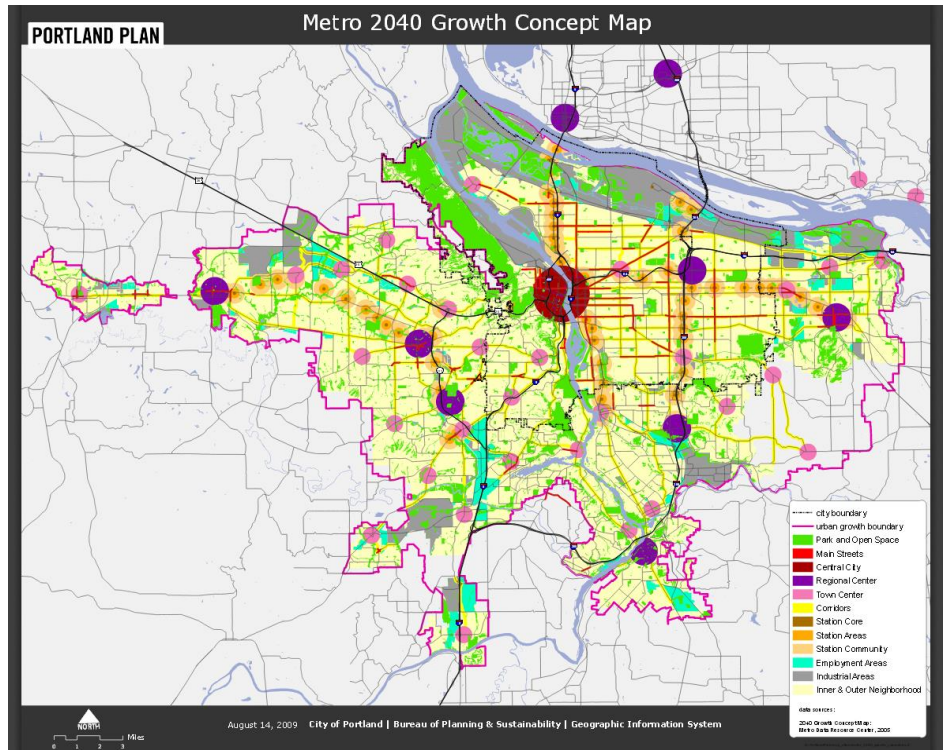
Image 17 Source: <http://www.portlandonline.com/portlandplan/index.cfm?a=288083&c=52250>

<sup>72</sup> [http://www.regionofwaterloo.ca/en/regionalGovernment/resources/TDM\\_OVERVIEW-\\_DRAFT\\_APR\\_8\\_09\\_DOC.pdf](http://www.regionofwaterloo.ca/en/regionalGovernment/resources/TDM_OVERVIEW-_DRAFT_APR_8_09_DOC.pdf)



interested in shifting their current behaviour and provides personalized support for making that change.

**Image 17 – Portland, Oregon Growth Concept Map**



Second, transit-oriented development does not immediately mean age-friendly development. Higher-density buildings can mean more stairs, less accessibility for para-transit vehicles, and higher property values and rents. While some of these effects have appeared in Portland, the recent adoption of the age-friendly plan may alleviate this issue. Waterloo Region may wish to consider adding age-friendly elements to the Transit Oriented Development policy in the Regional Official Plan and encourage similar policies in the official plans of the area municipalities.

Third, investing in transit-oriented development may mean less investment in more isolated areas, creating geographic inequity which could hurt seniors and soon-to-be seniors who are already living in the worst environments for aging in place (largest lots/houses, far from transit and services, etc.). In the Waterloo Region, increased investment in the transit corridor has crowded out funding for the more isolated neighbourhoods in the short term. However, through programs such as MobilityPlus, the Region is trying to address transit problems in more isolated neighbourhoods.

## 6.2 Arlington County, Virginia

### *Why We Chose It*



**Image 18 – Arlington County, metro service and relationship to Washington, D.C.**

Arlington is another excellent example of successful transit-oriented corridor development in the United States. Arlington may have transformed itself more than any other American suburb over the last 40 years. While the County was not in itself responsible for the creation of the Metro lines that connect it to neighbouring Washington, D.C., it has made careful use of the new infrastructure to make the transition from a relatively low-density area with

struggling commercial strips to a vibrant location where many area residents of all ages choose to live.<sup>73</sup>

### *What we Found*

Arlington County began developing a set of consistent, flexible policies and zoning in 1979. The County has steered development into ¼–½-mile overlapping circles, each with a metro station at its core. It has used a set of site-specific plans to nurture intensification in these circles, and in doing so transformed itself from a car-dependent region to one in which 40% of trips are made on public transit, the majority of households is carless or has only one vehicle for several people, and has near parity in commuting inflow and outflow.<sup>74</sup>

<sup>73</sup> Image 18 source: Source: <http://thecityfix.com/blog/qa-with-chris-zimmerman-the-future-of-smart-growth-in-arlington/>

<sup>74</sup> Arlington County Department of Community Housing and Development, Planning Division. "40 Years of Smart Growth: Arlington County's Experience with Transit Oriented Development in the Rosslyn-Ballston Metro Corridor." Presented December 6, 2012. Retrieved from: [http://www.arlingtonva.us/departments/CPHD/planning/powerpoint/rbpresentation/rbpresentation\\_060107.pdf](http://www.arlingtonva.us/departments/CPHD/planning/powerpoint/rbpresentation/rbpresentation_060107.pdf)

Beyond density, the County has turned its focus to other factors that impact age-friendliness. The Transportation Master Plan states the County's vision of "transportation [as] a system that provides equity and access to all users," and is integrated with land-use planning to ensure smart and equitable growth.<sup>75</sup>

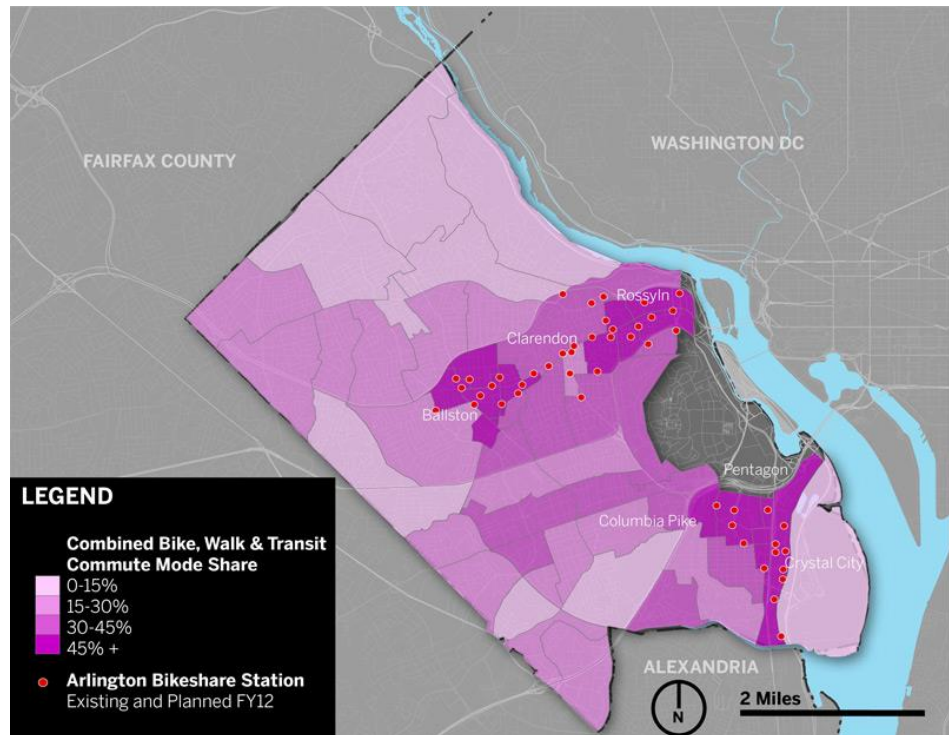


Image 19 – Non car-oriented transportation in Arlington County.

### Implementation

Arlington County

has primarily used policy tools to influence growth patterns. Key factors of its success include:

- Lobbying to change the planned metro line route to run along the primary commercial corridor, instead of along an existing track through residential areas.
- Keeping control over case-by-case zoning decisions in the corridor region. The County did not increase the density or height restrictions for the corridor regions, but instead publicized the preferred density for these areas, and approved specific site plans on a case-by-case basis. This approach allowed for growth to be deliberate and to ensure *meaningful* incorporation of public space, art, and accessibility features.
- Establishing a series of sector plans, one for each station's development zone. These plans ensure a specific concentration of services in the region, and provide for needs beyond market response.
- Altering the General Land Use Plan to allow for new zones that *require* mixed-use development, at varying intensities.

<sup>75</sup> Arlington County Master Transportation Plan: MTP Goals and Policies. Adopted December 2007. Retrieved from: [http://www.arlingtonva.us/departments/environmentalservices/dot/planning/mplan/mtp/mtp\\_draft.aspx](http://www.arlingtonva.us/departments/environmentalservices/dot/planning/mplan/mtp/mtp_draft.aspx). Image 19 source: <http://www.bikearlington.com/pages/bikesharing/arlington-bikeshare-transit-development-plan/map-gallery/>





**Image 20 – Arlington’s TOD corridor is visibly distinct from the surrounding low-density neighbourhoods.**

TOD in Arlington County took high levels of commitment from County government for over 30 years to be fully realized. While TOD in Arlington increased ridership and encourages residents to make do with fewer cars, it did not significantly impact areas outside the corridor.<sup>76</sup>

High-quality TOD development may require hands-on control on the part of the governing body—in this case, using the tool of approving higher density development on a site-plan basis, rather

than allowing for high-density building-by-right in the TOD zone.<sup>77</sup>

### ***Transit Outcomes***

In the Rosslyn-Balston Corridor, 40% of residents take public transportation to work. This is slightly more than the percentage that drive (39.8%). The Corridor has 16% of households with no vehicle, and another 59% with only one available for the entire household. Moreover, 76% of people who use the stations get there by walking.<sup>78</sup>

### ***Transit-oriented development***

Between 1970 and 2000:

- Office space in Arlington grew from 5.5 to 20 million square feet, providing significant concentrations of employment and a solid base to encourage commuting by transit, both into and out of the County.
- Residential space has grown from 7,000 units in the Rosslyn-Balston Corridor to 29,366 units.
- Retail space has grown from 865,507 to 2,842,169 square feet.
- The number of jobs located in the corridor has grown from 22,000 to 96,300.<sup>79</sup>

### ***Age-friendly infrastructure***

- The Washington Metro is fully accessible—every station has elevator access, double-wide entry gates, and barrier-free train access.

<sup>76</sup> Arlington County Department of Community Housing and Development, Planning Division. “40 Years of Smart Growth” (see above).

<sup>77</sup> Image 20 source: – [http://upload.wikimedia.org/wikipedia/commons/b/b3/Arlington\\_County\\_-\\_Virginia.jpg](http://upload.wikimedia.org/wikipedia/commons/b/b3/Arlington_County_-_Virginia.jpg)

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

- All buses in regular service are low-floor, allowing for barrier-free access.
- Policies support 6-ft minimum sidewalk clear zones in commercial areas, and 5-ft minimum sidewalk width in single family residential neighbourhoods, reducing obstructions for mobility restricted pedestrians.<sup>80</sup>

### Analysis: Older Adults Are Moving to Arlington County's Transit-Oriented Areas

**Table 3 – Age distribution by census tract for Arlington County, Virginia<sup>81</sup>**

Age Distribution	
Cohort	Percentage Growth 2000-2010
Total Population	
0-44	9.08%
45-54	-0.48%
55-64	41.76%
65-74	21.08%
75+	-15.52%
Metro Accessible*	
0-44	26.74%
45-54	4.79%
55-64	47.51%
65-74	35.71%
75+	-9.89%
Not Metro Accessible**	
0-44	-7.67%
45-54	-5.02%
55-64	36.50%
65-74	8.42%
75+	-21.12%

\*within 800 metres of a metro station

\*\*not within 800 metres of a metro station

to focus on long-term transit planning and must also ensure that existing policies are implemented in a timely manner.

While TOD in Arlington increased ridership among car-less and “car-light” households (those with a single car but more than one commuting adult), it did not significantly impact

In order to test the popularity of the transit-oriented, walkable areas for older adults, we performed a buffer analysis, in which we compared the change in the population by age cohort for the last two American Censuses for tracts within a “walkable” distance from a metro station (defined at 800 metres, approximately ½ mile), and those that are not. Our results show that the population of those in the “senior” cohorts of 65–75 and 75+ is growing faster in the “walkable” tracts than in the non-walkable, as shown in Table 3. More important, our results show a significant increase of 47.5% of the population in the 55–64 “seniors in training” age range. This cohort is more likely to be mobile than the older groups, but is already thinking about what they will need as they grow older.<sup>82</sup>

### *What We Learned: Transferable Ideas*

Transit Oriented Development in Arlington County took high levels of commitment from County government for over 30 years to be fully realized. In the case of Waterloo Region, the Regional Official Plan is a 20 year plan. The region needs to continue

<sup>80</sup> Arlington County Master Transportation Plan.

<sup>81</sup> 2000 and 2010 United States Decennial Census SF1 100% data, tract-level for Arlington County, retrieved from [americanfactfinder.gov](http://americanfactfinder.gov)

<sup>82</sup> *Ibid.*

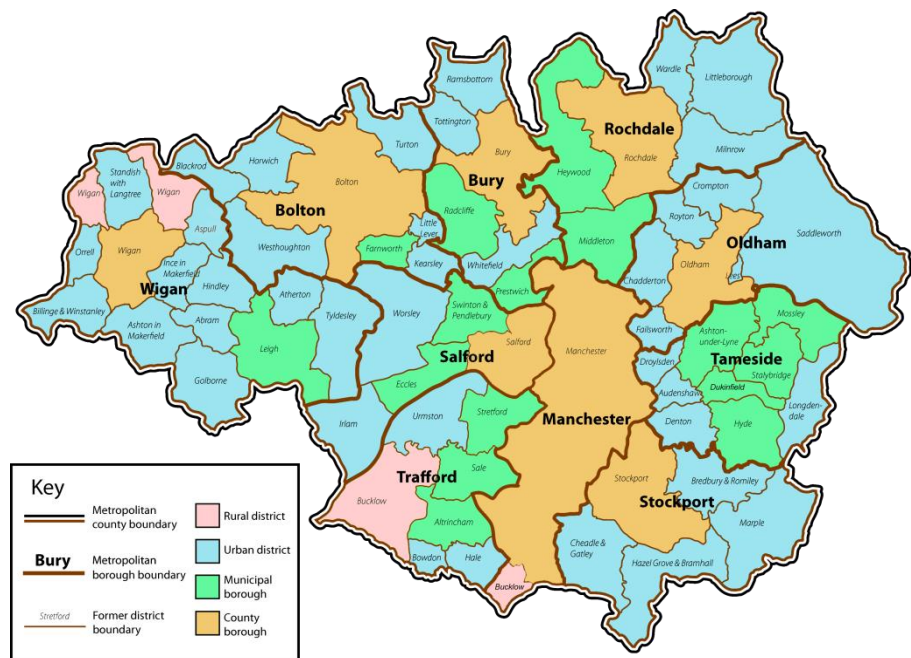
areas outside the corridor. Continued implementation of the TravelWise Program of the Waterloo Region may enable the region to also increase ridership in regions that are outside the transit corridor.

High-quality TOD development may require hands-on control on the part of the governing body—in this case, using the tool of approving higher density development on a site-plan basis, rather than allowing for high-density building-by-right in the TOD zone.

## 6.3 Manchester, United Kingdom

### *Why We Chose It*

Manchester is an example of an age-friendly city that accommodates diversity within the aging population. Unlike our other case studies, Manchester was not in need of broad intensification for transit-friendliness. However, its unique approach to planning for older adults provides insight into what a city can do to nurture the development of age-friendly neighbourhoods. In terms of the CMHC indicators, it has made progress in access to services and community engagement.<sup>83</sup>



Map 9 – Manchester, UK

### *What We Found*

#### *Valuing Older People*

Manchester began its age-friendly programming in 2003, with the creation of the Valuing Older People (VOP) initiative. VOP found that while seniors make up a lower proportion of Manchester's population than the national average, they also face a number of challenges, including isolation, a lack of mobility, and a general decrease in the quality of life. In

<sup>83</sup> Map 7 source: Wikipedia.org



collaboration with the City, VOP published “Manchester: A Great Place to Grow Older,” an age-friendly strategy for 2010–2020.<sup>84</sup>

Of importance for this study, two of the strategy’s key objectives were to “create better neighbourhoods for older people,” and to “improve care and support for older people.” The plan’s key strengths lie in its focus on creating “lifetime neighbourhoods” for all ages, and in its inclusive scope, accounting for racial, religious, sexual and linguistic diversity among older adults, in addition to physical ability.<sup>85</sup>

Since 2007, there has been “significant improvement” in the proportion of older people affected by income deprivation in Manchester.

The strategy’s vision for a lifetime neighbourhood includes strong transport and infrastructure, clear information, affordable housing, and clusters of public and private services within walking distance, such as a post office, a café, fresh food, and exercise facilities. Manchester’s experience shows:

- Neighbourhood-level planning is essential for creating age-friendly (lifelong) environments.
- Partnerships with local NGOs can provide a strong base for neighbourhood-level service provision
- It is important to recognize diversity within the aging population when planning for their needs, especially with service provision.
- “Clustering” requires government services and commercial endeavours, especially including “third spaces”<sup>86</sup> and access to fresh food.<sup>87</sup>

### ***Implementation***

Much of the implementation of the strategy has occurred through coordination with community groups to provide services. For example, Age-Friendly Wythenshawe (a neighbourhood in Manchester) has organized local Housing Providers to implement standards on a neighbourhood level.<sup>88</sup>

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<sup>84</sup> Manchester City Council. “Introduction to Valuing Older People,” retrieved from [http://www.manchester.gov.uk/info/500099/valuing\\_older\\_people/3428/valuing\\_older\\_people\\_vop](http://www.manchester.gov.uk/info/500099/valuing_older_people/3428/valuing_older_people_vop)

<sup>85</sup> City of Manchester. “Manchester: A Great Place to Grow Older,” adopted 2007. Retrieved from: [http://www.manchester.gov.uk/downloads/file/11899/manchester\\_a\\_great\\_place\\_to\\_grow\\_older\\_2010-2020](http://www.manchester.gov.uk/downloads/file/11899/manchester_a_great_place_to_grow_older_2010-2020).

<sup>86</sup> “Third spaces” are places that are neither home, nor work, but serve as gathering places for friends and neighbours.

<sup>87</sup> Ibid.

<sup>88</sup> Housing LIN. “Case Number 63: Towards an Age-friendly Wythenshawe—a partnership approach to developing the Wythenshawe Age-friendly Charter. February 2013. Retrieved from [http://www.housinglin.org.uk/\\_library/Resources/Housing/Practice\\_examples/Housing\\_LIN\\_case\\_studies/HLIN\\_CaseStudy63\\_AgeFriendly\\_Wythenshawe.pdf](http://www.housinglin.org.uk/_library/Resources/Housing/Practice_examples/Housing_LIN_case_studies/HLIN_CaseStudy63_AgeFriendly_Wythenshawe.pdf).

Between 2004 and 2012, the team has led 15 successful bids bringing £3.8M for work with older people indirectly attracting a further investment of £2.6M in research, projects and programs. As of November 2012, VOP began a small grants program to fund new services and coordination for age-friendly purposes. The city now has WHO age-friendly designation.<sup>89</sup>

***Age-friendly infrastructure***

All local service buses and light rail vehicles are accessible, by national law. Bus operators can also train their drivers to be aware of the needs of older passengers (a program pioneered in Leeds, a city in West Yorkshire).

***Age-friendly services***

Libraries offer courses in computer literacy, some specifically for older adults. A variety of housing organizations have developed plans to make their buildings and surrounding neighbourhoods age-friendly. In Waterloo Region, although the Grand River Transit (GRT) provides “transit education” to seniors on request, this program is not connected to library education. There is an opportunity to bring these disparate offerings together. Waterloo Region should consider working with libraries to develop travel programs for seniors and to provide a variety of specialized forms of training for seniors.

***What We Learned: Transferable Ideas***

Neighbourhood-level planning is essential for creating an age-friendly (lifelong) environment. The Region of Waterloo has started creating land use plans for areas around future rapid transit stations. However, there is still need for a broader level of planning at the neighbourhood level which is targeting the senior population of the Region.

Partnerships with local NGOs can provide a strong base for neighbourhood-level service provision. The Region of Waterloo has established partnership with NGOs to deliver environmental and transportation programming. However, there is a need to further identify opportunities to expand NGO partnership and to address the needs of an aging population.

“Clustering” requires government services and commercial endeavours, especially including “third spaces” and access to fresh food. Currently, there is no such comparable program in Waterloo; this gap represents an opportunity for the Region to strengthen services for seniors.

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<sup>89</sup> [http://www.manchester.gov.uk/info/500099/valuing\\_older\\_people/5775/age-friendly\\_manchester](http://www.manchester.gov.uk/info/500099/valuing_older_people/5775/age-friendly_manchester)

## 6.4 Adelaide, Australia

### *Why We Chose It*

In 2010, Adelaide developed a 30-year plan to transition its metropolitan region from a low-density, primarily car-dependent, city to one with a variety of well-used travel modes.



**Image 21 – Adelaide’s dense downtown is surrounded by low-density neighbourhoods<sup>90</sup>**

### *What we found*

#### ***A low-density community tries to become more transit-friendly***

Adelaide, population 1.1 million, has extremely low urban densities of about 6.0 people/ha across an area of 1,827 km<sup>2</sup>. Single-storey houses predominate with, on average, one car per dwelling. In 2011, 86% of metropolitan Adelaide residents used a car in their regular commutes, while only 8.9% used public transit. Another 4.5% walked or cycled.<sup>91</sup>

Inspired by the example of Portland, Oregon, the City developed the 30-Year Plan for Greater Adelaide in 2010, which includes a network of 14 transit-oriented development nodes within five transit corridors, complemented by 20 activity centres and \$1.5 billion investment in rail infrastructure. Currently, 100 bus routes, 1 tram line, and 6 suburban rail routes serve the City, as well as the City’s unique O-Bahn rail-guided bus system. The City provides Roam Zone bus services, which provides limited service away from regular scheduled routes during certain time of the day (especially in the afternoon).

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<sup>90</sup> <http://www.abovephotography.com.au/Aerial-Photos/South-Australia/Adelaide/Adelaide-CBD-9015115-Original.jpg>

<sup>91</sup> Australian Bureau of Statistics 2011 Census Community Profile for Greater Adelaide, Code 4GADE. Retrieved from [http://www.censusdata.abs.gov.au/census\\_services/getproduct/census/2011/communityprofile/4GADE?opendocument&navpos=220](http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/communityprofile/4GADE?opendocument&navpos=220) on January 24, 2014.

The City of Adelaide's Smart Move Transportation and Movement Strategy aims to increase travel choices and improve conditions for pedestrians, cyclists and those using public transport. Since the implementation of the strategy, the City has seen a 42% increase in transit trips, with at least an additional 100,000 people travelling to and around the City daily by means other than the automobile.

According to Andrew Allan of the University of South Australia, the Plan "sets in place an urban skeleton that allows a new urban form to evolve around it."<sup>92</sup>



Image 22 – Adelaide's o-bahn

### ***Transit***

A guided Busway ("O-Bahn"), opened in 1986 and completed in 1989, provides major bus service to the CBD from the northeastern suburbs. The daily ridership is 30,000 (2.5 million passengers annually). The O-Bahn operates at a very high speed (100 km/hr) and is among the fastest urban transit systems in the world.<sup>93</sup> Annual ridership across the entire city is approximately 40 million, of which more than 80% consists of bus passengers.<sup>94</sup>

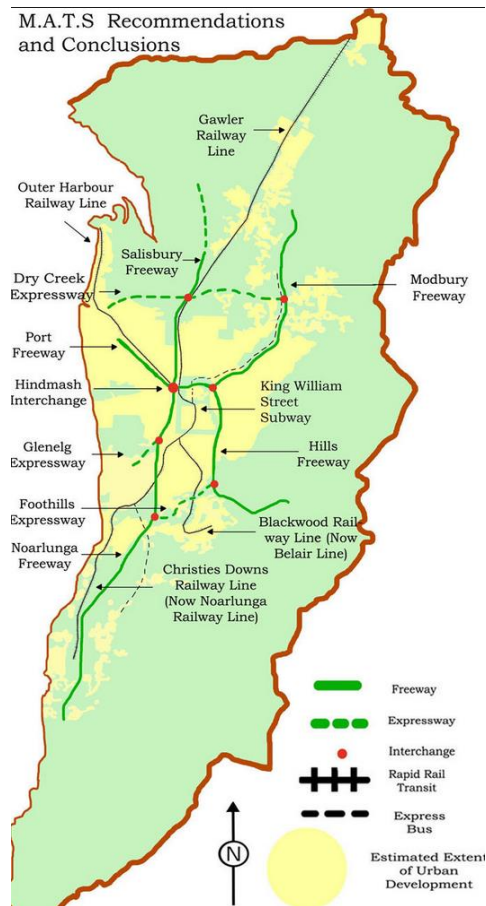
<sup>92</sup> Andrew Allan, Land Use Planning and its Role in Transforming the Adelaide-Gawler Line into a Transit Corridor of Connected Transit Oriented Developments, Australasian Transport Research Forum 2011 Proceedings, 28-30 September 2011, Adelaide, Australia, p. 7. [http://www.atrf11.unisa.edu.au/Assets/Papers/ATRF11\\_0188\\_final.pdf](http://www.atrf11.unisa.edu.au/Assets/Papers/ATRF11_0188_final.pdf)

<sup>93</sup> Graham Currie, Bus Rapid Transit in Australasia: Performance, Lessons Learned and Futures, Journal of Public Transportation, 2006 BRT Special Edition, <http://www.busnsw.com.au/Portals/15/News%20&%20Media/Publications/Bus%20Rapid%20Transit%20in%20Australia%20-%20Prof%20Graham%20Currie.pdf>

<sup>94</sup> [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp90v1\\_cs/Adelaide.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp90v1_cs/Adelaide.pdf)

Image 27 source: <http://www.abovephotography.com.au/Aerial-Photos/South-Australia/Adelaide/Adelaide-CBD-9015115-Original.jpg>





Map 10 – Map of Adelaide transit

Between 1986 and 1987 and between 1995 and 1996, however, annual patronage on the region's bus, rail, and tram system fell from 82 million to 62.9 million trips, about 23%. During the same period, annual ridership on the 18 bus routes using the guideway increased by 75%. Current ridership in O-Bahn is 16% higher than in 1991. For other corridors, patronage is more than 21% lower than in 1991.

A high share of the O-Bahn ridership growth came from car drivers because it is almost twice as fast as driving into the city and there is no need to find parking in the downtown core. Since November 2012, priority bus lanes run along main highways to make it easier for Adelaide's bus services to travel into and out of the city.

After electrification, trains on Adelaide to Gawler Central will also be much faster. The City will concurrently implement a 40km/h speed limit trial on roads in the residential area bounded by the South and East terraces, Wakefield Street and Hutt Street.<sup>95</sup>

Public transportation is free for all riders on three routes:

- Tram—from The Entertainment Centre to South Terrace
- City Loop 99C
- Adelaide Connector Bus: Connecting all parts of Adelaide and the square mile, available for visitors and residents to the city.

Night Bus Service is free in December to provide an alternative to the temptation to drinking and driving behaviour during the holiday season and to attract new riders to the service.<sup>96</sup>

The “Good Evening, Adelaide” Strategy encourages the organization of events and activities in the City after 5 p.m. during the summer months to increase off-hour transit ridership.

<sup>95</sup> Source for Map 8: Source: Wikipedia, Metropolitan Adelaide Transport Study (MATS)

<sup>96</sup> David Ellery, Free Nightrider aims to win patrons, *Canberra Times*, Nov 29, 2013, <http://www.canberratimes.com.au/act-news/free-nightrider-aims-to-win-patrons-20131128-2yeou.html>

### ***Transit-oriented development***

The O-Bahn stimulated development in Tea Tree Gully area, helping it become an urban village. Little development has occurred around the remaining stations, which are mainly park-and-ride arrangements.

In Mawson Lakes TOD (a recently completed TOD project), street parking is limited to two hours. The level of private parking provision for dwellings is about half what it is compared to traditional low-density suburbs in Adelaide.

The South Australian Government encourages higher-density inner-city living in Adelaide. The 30-Year Plan for Greater Adelaide aims to increase dwelling density from 8 units/ha to 25–35 units/ha in designated development areas. Fourteen centres have been nominated for future TODs, plus additional 20 sites that will create a polycentric centre focused on transit accessed by walking and cycling. The Plan will direct developments along five major and 24 minor transit corridors.

All of Adelaide's 14 TODs and 20 other nominated transit sites will accommodate about 60,000 dwellings out of a total expected metropolitan growth of 96,000 dwellings for 186,700 people with 94,000 jobs. Hence, two-thirds of Adelaide's expansion over the next three decades will be in the form of TODs, either at a TOD or in a transit corridor served by TODs.

### ***Age-friendly infrastructure and services***

The Government of South Australia has developed a seniors' plan called *Prosperity Through Longevity: South Australia's Ageing Plan*. The four main elements of the plan are Recognizing Diversity; Health, Wellbeing and Security; Social and Economic Productivity; and All-ages-friendly Communities. It is noteworthy that the Plan includes a focus on the "social and economic productivity" of seniors, which is a positive approach that does not treat seniors as a burden on the system, but as potential contributors to society.<sup>97</sup>

As part of the research for this plan, the authors developed a survey on what was most important to seniors in four groups (50–60; 60–70; 70–80; and over 80). One interesting finding was, "The importance of financial issues decreases with age while the importance of transport and mobility and safety and security increases with age."<sup>98</sup> This insight has helped inform elements of the state's aging plan.

Some features of Adelaide's age-friendly transportation initiatives include:

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<sup>97</sup> Government of South Australia, n.d., *Prosperity Through Longevity: South Australia's Ageing Plan—Our Vision*, 2014–2019.

<sup>98</sup> Ibid., page 42.



- Transit vehicles are accessible and include accessible ramp and hydraulic lifts.
- New taxi drivers are trained in age awareness as a part of professional development. The training is intended to highlight older customers as a significant customer base for the industry.
- The South Australian Seniors Card serves as a Seniors Metrocard, providing holders with public transport fare concessions, and free travel on all Adelaide Metro public transport services between 9:01 a.m. and 3:00 p.m. weekdays; before 7 a.m. or after 7 p.m.; and all day on weekends and public holidays. Money can be added to the seniors' card to travel during non-free time. The available balance in the card is protected if the card is lost or stolen. Anyone who holds a valid Seniors Card from any Australian State or Territory is also eligible for free Adelaide Metro public transport.

In 2010, the South Australian Government, through its Office for the Ageing, allocated \$335,000 for 2010–2011 and \$266,700 for 2011–2012 to support flexible working arrangements for older South Australians, including public education for employers and older workers.<sup>99</sup>

### ***Planning zones that balance the needs of pedestrians, cyclists, and cars***

The Hinderly Street Development project seeks to find a better balance between cars, pedestrians and cyclists by creating a slow-speed street environment. Features of the design include wider footpaths, alternative road surface materials, street trees, lighting and street furniture.

### ***Challenges***

The newly constructed Northern Expressway linking Gawler with Port Adelaide (opened in 2010) may encourage more car-oriented development north of this rail corridor (Adelaide-Gawler) and potentially reduce rail commuter use, particularly between Gawler and the city. Large areas within the corridor are devoted to defence, aviation, industry, parks and rural areas and the park-and-ride model of rail commuting along most of the route precludes the development of residential nodes around the stops. Incentives to first-home buyers have also contributed to low-density development on the urban edge.

### ***What We Learned: Transferable Ideas***

The research for South Australia's Ageing Plan confirmed the crucial role of mobility and transportation in ensuring the quality of life for seniors—and emphasized that seniors value mobility ever more highly as they age. The City of Adelaide has tried to encourage seniors' travel by treating the South Australia Seniors' Card as a transit pass, allowing free

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<sup>99</sup> <http://www.sa.gov.au/upload/franchise/Seniors/Office%20for%20the%20Ageing%20-%20Publications/Publications/Office%20for%20the%20Ageing%20Annual%20Report%202011-12%20FINAL.pdf>

travel for seniors during non-peak periods. Waterloo Region may wish to consider off-peak travel incentives for seniors during the implementation of the Smart Card.

The Adelaide transportation system has had some modest success in increasing ridership along a particular corridor. What Adelaide lacks is a strong growth boundary to rein in outward expansion of the urban area. By comparison, Waterloo has taken the initiative to make the most of available planning tools to control outward expansion and encourage more intensification along the transit corridor. In addition to the Growth Plan, the Region and Area Municipalities have identified growth boundaries in their official plans. Some highway and road expansion is under way; however, the Regional Transportation Master Plan aims to limit resources devoted to road expansion.

## **6.5 Ottawa, Ontario**

### ***Why We Chose It***

Ottawa offers a good example of transit-focused transportation planning. Bus rapid transit has been in place since the 1980s and the system is now expanding. To complement expansion of the system, free parking downtown is eliminated or limited, and land use planning supports transit use.

### ***What We Found***

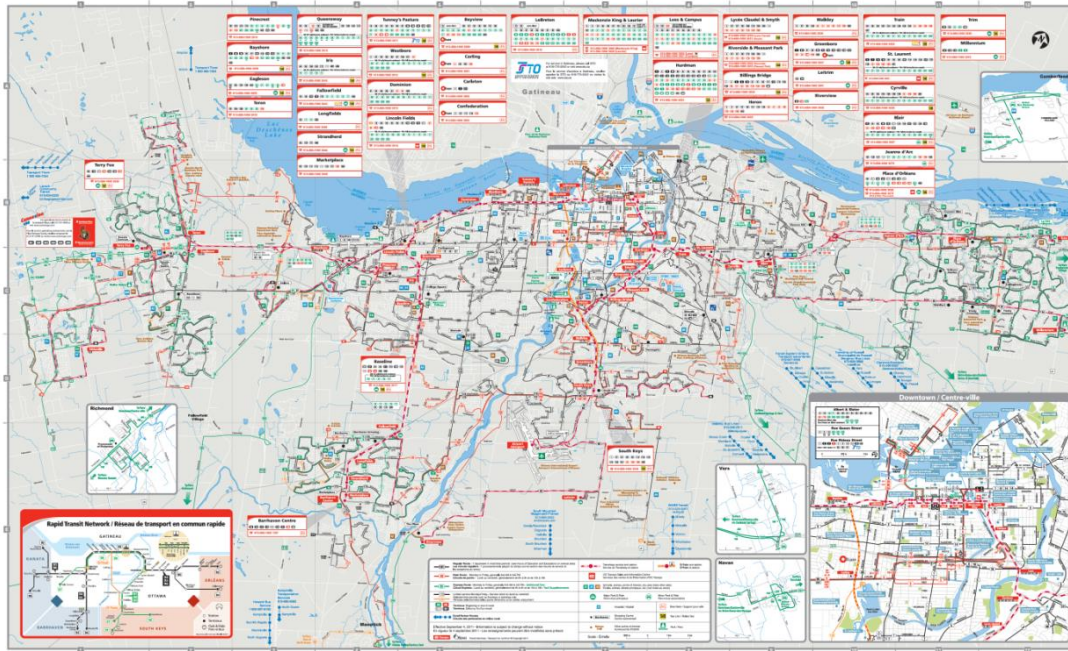
#### ***A successful Bus Rapid Transit system***

In developing its plans for transit, the city chose diesel bus technology at first for its flexibility, particularly in the suburbs. Starting in 1983, the Ottawa Bus Rapid Transit system began with five stations, but now the system is 60 km long with 26 km of bus-only roadway and many dedicated road lanes. Feeder routes support the busway and connect the suburbs to the downtown area.

In 2013, Ottawa began construction of the first phase of electric LRT, expected to open in 2018; this consists of 12.5 km of LRT with 2.5 km underground; this will replace the central portion of the east-west transit way. This initiative represents the first known example of a community “upgrading” from BRT to LRT.

### ***Transit***

The City of Ottawa’s Official Plan emphasizes the development of rapid transit over new roads or road widening. Ridership has increased since the 1990s. More than half of trips to downtown are made by bus. East-west bus commuters exceed east-west car commuters on the Queensway. Travel is up to twice as fast by bus as it is by car. One-third of shoppers at St. Laurent arrive by transit. Bus service from the airport to downtown is at least five minutes faster than taking a taxi, and much cheaper.



Map 11 – Ottawa transit map; Source: OCTranspo

### ***Transit-oriented development***

Development is focused on nine centres around existing or planned transit stations: Orleans, Kanata, Baseline, Tunney's Pasture, St. Laurent, Cyrville, Blair and South Keys, Vanier. Secondary plans also require all new houses in subdivisions to be within walking distance of a transit route.

Since 1978, the city has seen \$1 billion of new construction around transit stations. About 39% of jobs are located within 600 metres of rapid transit stations.

The Regional Plan (which established this direction before the Region, six municipalities, and several townships amalgamated in 2001) requires all shopping centres with more than 375,000 sq. ft. of space to be within a five-minute walk of a transit station. Employment nodes have developed at several transit stations—Blair, St Laurent, Cyrville, Baseline, Tunney's Pasture (including the new Holland Cross development at the latter).

Ottawa also launched the Residential Downtown Intensification (Re-Do-It) initiative in 1994, to help reverse the decentralization of the downtown's residential community and revitalize the core. This program included waiving development charges and a reduction in building permit fees for residential development in target areas, to foster development and

guide intensification into areas that matched the City's desired land use pattern. This has been a key in developing a transit-oriented downtown.<sup>100</sup>

### ***Age-friendly infrastructure***

OCTranspo stations are fully accessible, heated, with services, real-time information, and convenience shopping in certain locations. Covered pedestrian walkways have also been added in some locations. The fare system differentiates between peak and non-peak, and encourages non-peak travel. Seniors ride free on transit on Wednesdays and the fare system favours off-peak travel.

### ***Age-friendly services***

Age Friendly Ottawa is a community project of the Council on Aging of Ottawa that is working to make Ottawa more responsive to the needs of older adults. Its eight focus areas are similar to the six groups identified by CMHC, with the addition of social inclusion and communications: (1) Outdoor spaces and buildings, (2) Transportation, (3) Housing, (4) Social Participation, (5) Respect and social inclusion, (6) Civic participation and employment, (7) Communication and information, (8) Community support and health services.

The Ottawa Seniors Transportation Committee works with the Council on Aging of Ottawa to find solutions to seniors' transportation issues. It includes representation from a range of senior-focused and health organizations.<sup>101</sup> In spring 2013, the organization published a proposed "Community Framework," listing actions that Age Friendly Ottawa and its partners can undertake to address seniors' needs in all eight AFC domains. The actions for transportation included "Work with community partners to increase choice and availability of affordable transportation options, such as volunteer driver programs, shuttle buses etc." and "Offer more door-to-door assistance to frail and isolated seniors, especially for medical appointments, such as hospital volunteers greeting patients at the door and escorting them to appointments."<sup>102</sup>

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<sup>100</sup> Canadian Urban Institute. "The Value of Investing in Canadian Downtowns,," published May 2012. 2<sup>nd</sup> Edition available at <http://www.canurb.com/cui-publications/the-value-of-investing-in-canadian-downtowns-part-two.html>

<sup>101</sup> The Council on Aging of Ottawa; OC Transpo; Para Transpo; Ottawa Community Support Coalition; Champlain LHIN; South-East Ottawa CHC; Ottawa Seniors Action Network; Canadian Cancer Society–Ottawa Unit; Stroke Survivors Association of Ottawa; City of Ottawa Public Health; Ottawa Community Immigrant Services Organization (OCISO); Champlain Spinal Cord Injury Solutions Alliance, Canadian Paraplegic Association Ontario; HelpAge Canada; Rideau Community Support Services; City of Ottawa Seniors Advisory Committee; as well as senior citizens from both rural and urban Ottawa.

<sup>102</sup> Council on Aging of Ottawa, Towards an Age-Friendly Ottawa: A Community Framework, Bulletin, May 2013, page 7, <http://www.coaottawa.ca/publications/AFOBULLETIN-EN.pdf>

The committee has also published “Tips for Seniors 65+ Using OC Transpo”<sup>103</sup> (available in several languages), initiated and promoted the OC Transpo Ride-Free program for seniors, and formed a sub-committee to review Ottawa’s Pedestrian Plan focusing on seniors’ safety issues.<sup>104</sup>

### ***Challenges***

Some suburban office parks (particularly in Kanata) are still outside the transit service area. Downtown congestion is still a problem (putting the new line underground may help).

Community consultations have identified general satisfaction with the services provided by OC Transpo, although seniors mentioned concerns relating to costs, route changes and cuts in service, safety boarding or exiting buses, and the lack of service in rural areas.<sup>105</sup>

### ***What We Learned: Transferable Ideas***

Ottawa has been successful in blending land use and transportation planning, focusing development around existing or planned transit stations, and implementing requirements that shopping centres be within a five-minute walk of a transit station and that subdivision plans put all new homes within walking distance of a transit route. Waterloo Region does not have such policies at this time, so there is an opportunity to investigate the feasibility of implementing similar transit-friendly policies to ensure early adoption of transit in new neighbourhoods.

The Ottawa Seniors Transportation Committee has a diverse membership that focuses specifically on the transportation needs of seniors and has succeeded in securing free transit for seniors on certain days as well as improvements related to para-transit and better access to transportation for senior residents living the rural areas of the city. Although Waterloo Region already offers reduced fares to seniors, there is the potential to explore additional options to reduce the cost of transit for seniors.

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<sup>103</sup> <http://www.coaottawa.ca/committees/transportation/documents/TipsforSeniorsUsingOCTranspo--revisedAugust2012.pdf>

<sup>104</sup> <http://www.coaottawa.ca/community-partnerships/documents/TransportationcommitteeEN.pdf>

<sup>105</sup> Age Friendly Ottawa Newsletter, vol. 1, issue 1, summer 2012. <http://www.coaottawa.ca/age-friendly/documents/NewsletterSummer2012-FINAL.pdf>



## 6.6 Winnipeg, Manitoba

### *Why We Chose It*

Winnipeg has created a comprehensive growth plan after extensive public consultation that incorporates transit-friendliness and accessibility/age-friendliness as key components to a broader plan.

### *What We Found*

#### ***The OurWinnipeg Plan***

In 2011, after an extensive consultation process, the City of Winnipeg adopted OurWinnipeg, a comprehensive plan to guide the city's development through a period of population and economic growth.<sup>106</sup>

OurWinnipeg represents a new approach for the City, in that it calls for transitioning the built environment to one consisting of “complete communities,” which involve higher-density, mixed-use development oriented around transit accessibility. An innovative feature of OurWinnipeg is that it seeks to reach this goal through planning for land use and transportation in a “dynamically integrated” manner.



**Image 23 – OurWinnipeg is a comprehensive plan with high levels of public participation**

OurWinnipeg recognizes older adults as a key demographic. But rather than plan for them separately, the plan links its core goals to successful aging in place, by “providing complete, walkable communities with multiple housing options, communities where people can be close to various employment opportunities and remain as connected and independent as possible,” as well as “includ[ing] accessibility and universal design implications in project

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<sup>106</sup> City of Winnipeg. “OurWinnipeg January Updates,” [Speakupwinnipeg.com](http://speakupwinnipeg.com), retrieved from: <http://speakupwinnipeg.com/ourwinnipeg/>

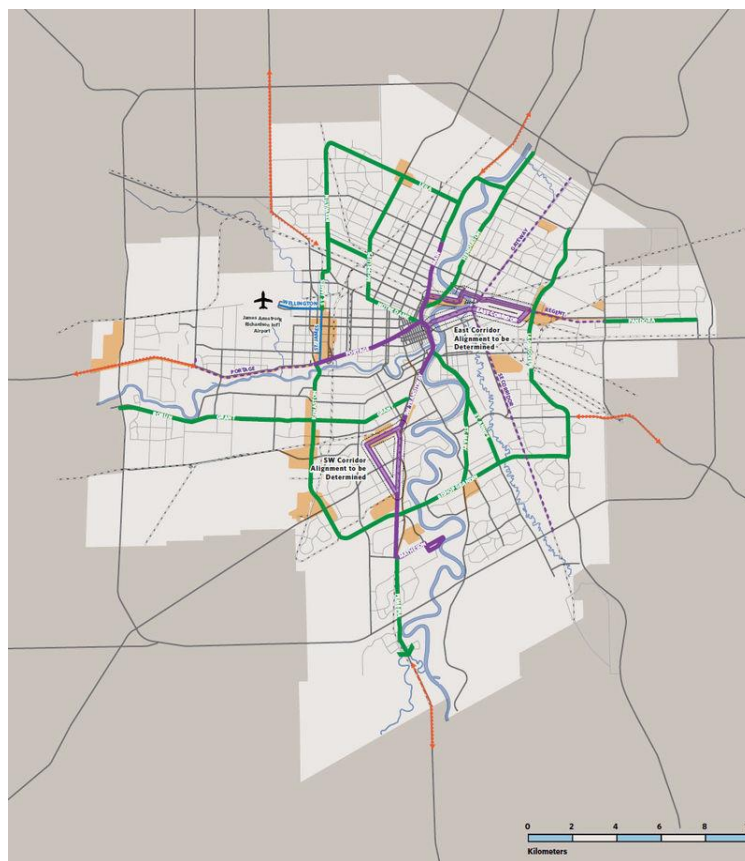


scoping, to ensure adequate budget and design requirements are considered at all stages—planning, design, implementation and maintenance” of public transportation.<sup>107</sup>

Winnipeg, a city with similar growth and demographic trajectories to Waterloo (aging populations, diverse populations, growing populations), is reimagining its transportation and land use plans. OurWinnipeg addresses age and ability as one factor of diversity within the broader plan, both recognizing the need to plan for older people, and that this cannot happen in isolation. We characterize this as “mainstreaming.” While there have been some positive changes in the built environment and transportation systems, the relatively meagre progress is partly due to the City’s postponement of alterations to the zoning code.

### Implementation

Winnipeg City Council adopted *OurWinnipeg* as the City’s official 25-year vision plan in July 2011. Since that time, the City and various divisions have changed policies to align with the goals and objectives of the plan.<sup>108</sup>



#### LEGEND

- |  |  |
|--|--|
| <span style="color: green;">—</span> Potential Quality Corridors               | <span style="color: blue;">—</span> Airport Link   |
| <span style="color: purple;">—</span> Rapid Transit Corridor (to 2031)         | <span style="color: orange;">—</span> Potential Regional Connections   |
| <span style="color: purple;">- - -</span> Rapid Transit Corridor (beyond 2031) | <span style="background-color: orange; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Transit-supportive Growth Areas |

The Winnipeg Transportation Master Plan, approved by Council in November 2011, explicitly aligns itself with the *OurWinnipeg* Plan in calling for a “transportation network that supports the approved urban structure and the concept of complete communities. This includes creating a network of rapid transit routes and quality transit corridors that can become the focal points for new development and redevelopment. It also includes providing complete, safe, and accessible transportation options for all

<sup>107</sup> City of Winnipeg. “OurWinnipeg.” Retrieved from: [http://speakupwinnipeg.com/wp-content/uploads/2011/07/OurWinnipeg.Jul13.2011.WEB\\_RGB\\_.pdf](http://speakupwinnipeg.com/wp-content/uploads/2011/07/OurWinnipeg.Jul13.2011.WEB_RGB_.pdf)

<sup>108</sup> City of Winnipeg. “OurWinnipeg Adopted by Council,” Retrieved from: <http://winnipeg.ca/interhom/CityHall/OurWinnipeg/>

residents of *all* abilities from young to old.”<sup>109</sup>

The City is currently in the process of reviewing Zoning By-law 200/06, which deals with neighbourhoods and Zoning By-law 100/0, which applies to downtown, to align with the recommendations in OurWinnipeg, with council decision pending.<sup>110</sup>

#### Map 12 – Winnipeg transit plan

The South West RT Line—a Bus Rapid Transport line is now in operation. An extension of the line (Stage 2) is under construction, and plans for several other lines are under way.<sup>111</sup> Several new developments have been realized, including the Yards at Fort Rouge, a mixed-use, transit-oriented development along the RT line, and Downtown Transcona, a revitalization project that is using creative rezoning to create a more walkable, dense environment.<sup>112</sup>

Winnipeg achieved the first step in its goal to be an Age Friendly City when City Council voted in favour of accepting a resolution to proceed with the designation process to obtain Age Friendly status in Manitoba. The City has installed 30 regular shelters and four heated bus shelters with associated stop improvements across the network. Winnipeg Transit is now approximately 95% complete in achieving its goal of having a fleet of accessible low-floor buses. Improvements continue to be made to bus stop designs.

Winnipeg Transit’s ridership has been growing twice as fast as the city’s population. “We’re grabbing market share from the automobile, which is a great thing for Winnipeggers,” transit director David Wardrop said. “There has been a greater appreciation of some of the service provisions provided by Transit—the convenience of the service, the electronic information systems ... and some of the comfort amenities.”<sup>113</sup>

#### ***Corridor and TOD intensification***

While some intensification has occurred (for example, the Yards at Fort Rouge and Downtown Transcona), the BRT system has yet to spur the levels of corridor and node development expected. However, this situation may change with the passage of zoning code updates, which are intended to work in concert with new transit development.

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<sup>109</sup> *Winnipeg Transportation Master Plan*, October 2011, page i.

[http://winnipegtransit.com/assets/872/APPROVED\\_Winnipeg\\_TMP\\_2011-11-28.pdf](http://winnipegtransit.com/assets/872/APPROVED_Winnipeg_TMP_2011-11-28.pdf)

Map 10 source: City of Winnipeg

<sup>110</sup> <http://speakupwinnipeg.com/zoning-alignment/>

<sup>111</sup> <http://winnipegtransit.com/en/southwest-transitway>

<sup>112</sup> <http://speakupwinnipeg.com/ourwinnipeg-in-action-map/>

<sup>113</sup> <http://www.winnipegfreepress.com/local/Transit-ridership-increasing-at-double-the-growth-of-the-city--227261581.html>

The 2013 OurWinnipeg update announced the City's development of a Performance Measurement Framework, which would provide a basis for tracking changes in land use patterns, demographic characteristics, system performance and mode choice over time in 2013. We were unable to find any information on the Framework's current status.

### ***Age-friendly services***

Revitalization in downtown and outer neighbourhoods is indirect evidence of increased services benefitting older adults. However, to date these developments are limited, and data on services specifically targeting older adults or utilization rates of current services are not available at present.

### ***What We Learned: Transferable Ideas***

Winnipeg is a Canadian city with similar growth and demographic trajectories (aging populations, diverse populations, growing populations) that is reimagining its transportation/land use plans.

The OurWinnipeg initiative recognizes age and ability as one factor of diversity within the broader plan, underpinning the need to plan for older people while acknowledging that such planning cannot happen in isolation. Another way of describing this approach is "mainstreaming." Waterloo Region would be well advised to continue implementing the *Accessibility for Ontarians with Disabilities Act* and ensure that planning for an aging population is integrated into everyday planning practice.

While Winnipeg has seen some positive changes in the built environment and transportation systems, the relatively meagre progress to date is partially due to the City's postponement of altering the zoning code to reflect current goals. In Waterloo Region, zoning by-law reviews are also incomplete. Kitchener and Waterloo have changed some zoning provisions to increase density and permit mixed uses as of right and the Region's parking management worksheet and Kitchener's shared parking policies currently support intensification. But there is a need for the Region to support area municipalities as they complete zoning by-law reviews, to ensure that these plans are integrated with proposed transportation and transit systems.

## **7. Case Studies: Neighbourhoods**

Every Saturday the “Homes” section of the local paper shows readers the varieties of housing available in our communities. While each reader has fantasies about what he or she might want in housing, it is difficult to imagine options beyond those shown in the advertisements. This gap between the ideal and the available makes developing new forms of real estate more difficult. Developers respond to the “preferences” of the market, but they also shape those preferences when they make “rational,” financially safe decisions based on what has succeeded in the past.

To help overcome this Catch-22, we have studied the following examples of neighbourhoods from across Canada in a variety of urban and suburban contexts to provide inspiration to those who may wish to invest in developments that meet age-friendly criteria while turning a profit. The following descriptions of six age-friendly neighbourhoods show that new forms of housing are being created in Canada, and when they are done well, they can be highly successful. Importantly, each of these neighbourhoods is built at a walkable scale, mostly with mid-rise construction and a range of nearby amenities, including public transit.<sup>114</sup>

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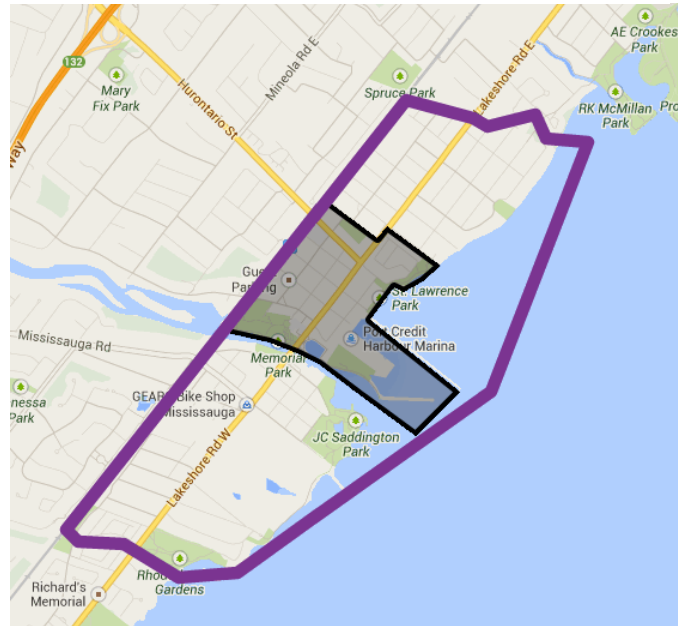
<sup>114</sup> Data for all tables and charts in Chapter 7 are 2001, 2006, and 2011 census data from Statistics Canada. All maps are from Google Maps, with boundaries determined by Statistics Canada census tract and dissemination area boundaries.

## 7.1 Port Credit, Mississauga, Ontario

### *Neighbourhood Composition*

Port Credit is a former independent municipality bordering Lake Ontario that is now amalgamated into the City of Mississauga. Since 1998, FRAM corporation has developed the shoreline area—formerly the St. Lawrence Starch Plant—into a series of townhouse, mid- and high-rise condominium units. The new development has animated the waterfront, allowing for a community with many age-friendly and transit-friendly features, including walkability, nearby amenities, and close connections to multiple options for local and regional public transportation. This area, shown in Map 13, comprises our study area. (The Community Building Strategy of the Region of Waterloo also provides similar opportunities for developers to engage in age-friendly intensification around station areas.)

**Map 13 – Port Credit study area (grey) and census tracts (purple)**



New development in Port Credit lies primarily between Lakeshore Boulevard—a lively and pedestrian-friendly shopping street—and Lake Ontario. Most of the community is within a few blocks of a range of services and amenities. Two supermarkets are within the study area, as well as a library, three pharmacies (with two more just outside the boundaries), a nearby medical centre, and numerous restaurants, cafes and shops. The area is highly walkable by local standards. Port Credit streets form a grid pattern with short blocks and sidewalks, making navigating on foot safe, easy, and interesting. In contrast, most nearby neighbourhoods have longer blocks, no sidewalks, and roads that curve and intersect at odd angles, making navigation on foot much more difficult.

### *Public Transportation*

Port Credit is very accessible by local and regional public transportation. There is a GO train station the centre of Port Credit, just inside the study area. Besides regional train service providing access to Toronto and Hamilton, the station serves as the terminus for several bus lines, which connect the area to Square One Mall Mississauga and other

neighbourhoods. Plans are under way for this area to become the southerly anchor of a new light rail line that will link Port Credit north along Hurontario to Brampton.

### *Housing options for older adults*

FRAM developments in the area include The Regatta, 80 Port Street, 70 Port Street, Live Work Towns, Port Street Market, Waterfront Towns, and currently, North Shore Condominiums, all of which are townhouse, mid-rise, or high-rise developments with varying unit sizes and prices. In addition, two retirement residences and an assisted living facility are within walking distance of the study area, with more than 200 residents in total.

### *Demographics*

Demographic shifts in Port Credit over the past two census cycles support the notion that the area's features are attractive to older adults. While the neighbourhood has seen good growth rates, the number of older adults (65 years and over) has jumped 31%, while those in the 55–64 range ("seniors in training") are growing at a rate of nearly 71%.

**Table 4 – Port Credit Demographics**

Port Credit (Tracts 5350540.01 and 5350540.02)					
	2001	2006	2011	Growth	Growth Rate
Total Population:	9,895	10,080	10,530	635	6.42%
Population 65+:	1,310	1,460	1,715	405	30.92%
Population 55-64:	935	1,275	1,595	660	70.59%

This trend towards an older population is also visible in Chart 1, which shows the age distribution in Port Credit from 2001 to 2011. The growth in the 65+ categories and in the 55–64 categories is apparent. But, importantly, we also see growth in the 45–54 range, indicating that not all of the growth in the older population is due to previous residents aging over the period analysed. In other words, the data offer strong evidence that older adults are moving to Port Credit, in greater numbers than those in younger cohorts.

An important element in the physical structure of the area that allowed Port Credit to evolve as an attractive "infill community" is the depth of the parcels available for redevelopment—an advantage of using a former industrial property. Although the "address" of the area is defined by the main street character on Lakeshore Boulevard, the developer (FRAM) was able to establish a "natural" extension of the street grid, allowing an appropriate distribution of various buildings and land uses.

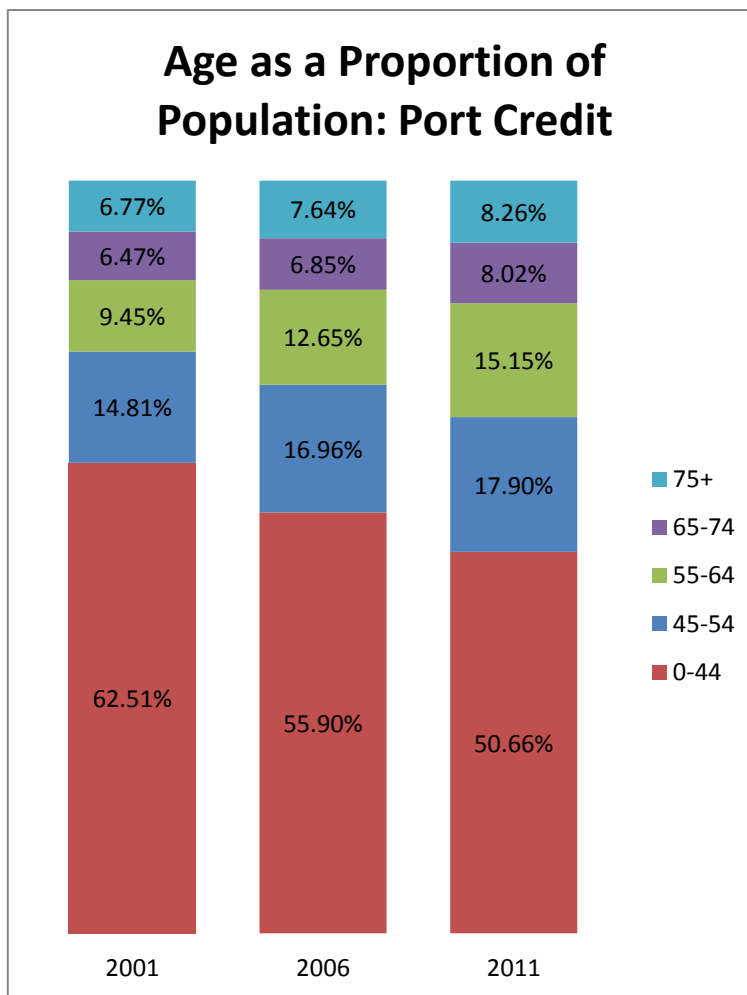


The marketing strategy of the developer is worth noting. Before closing on purchase of the property (St. Lawrence Starch was a brownfield site), the developer put up a sign with a rendering that generated 850 telephone enquiries. The developer ultimately received 500 replies to a follow-up mailing—an extraordinarily high response rate. Seven focus groups were held, in which participants were divided according to their specific area of interest (townhouse, midrise building, non-specific etc). The developer also organized a focus group for local realtors, at which they saw the initial vision for the redevelopment.

The first phase of the project was 185 units of townhouses, which were purchased for the most part by residents aged 55–64 who were downsizing from properties in the area. The opportunity to live close to Lake Ontario also attracted empty nesters from Toronto and elsewhere who were motivated to move there because their adult children lived in the area.

The second phase of development included a series of midrise buildings. The typical age of purchasers for these units was 70 and over. The developer offered suites of above-average size at attractive prices because the cost of brownfield remediation was much less than anticipated.

**Chart 1 – Age as a proportion of population for Port Credit census tracts**

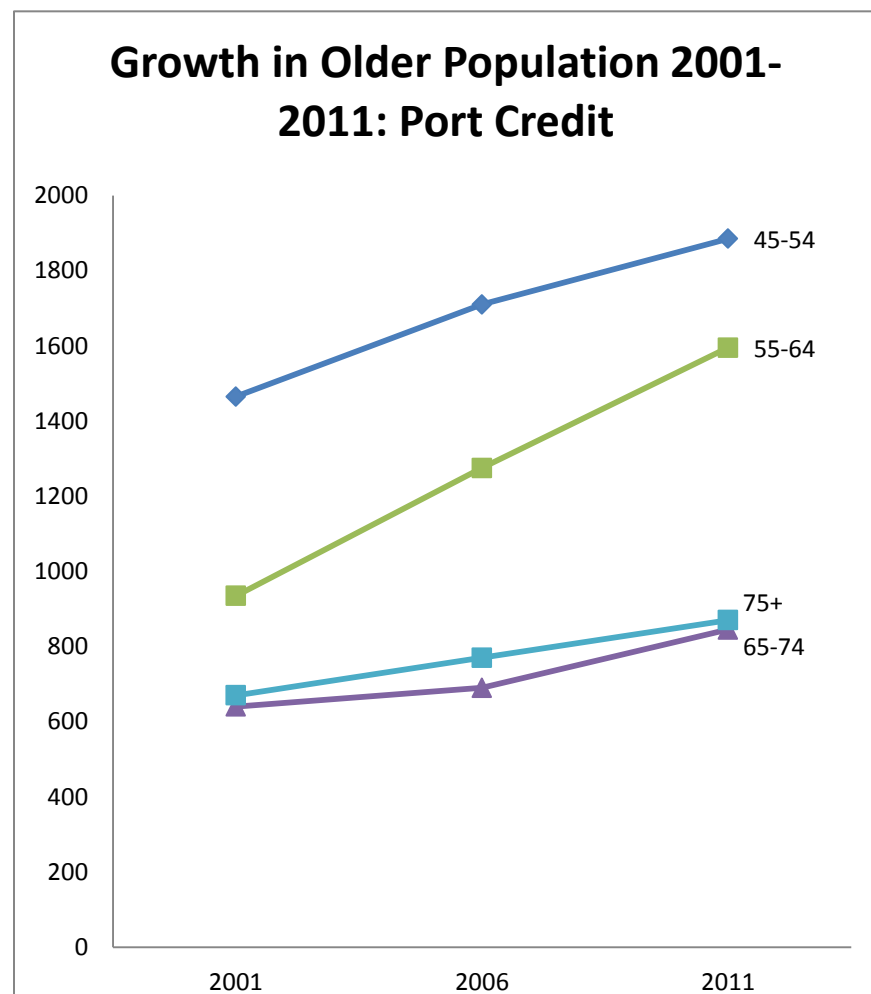


Over a 14-year period, a number of clients purchased townhouses, then moved to midrise apartments, and finally to a retirement residence constructed as a later phase of the project. With each move, residents chose units with fewer parking spaces. Townhouses offered three spaces per unit, while midrise units have either one or two spaces, depending on their size. In the opinion of the developer, the proximity of amenities and “easy access” to the GO station allowed residents to reduce their reliance on car access, in effect re-orienting their purchasing and trip-making habits over time.

FRAM has duplicated the success of the Port Credit project in a suburban Toronto development—the Shops at Don Mills. The owner, Cadillac Fairview, changed the retail character of site over several decades. The original free-standing shopping plaza served a relatively young “move in” population that “aged in place,” as families grew and matured. The next era of development meant “refreshing” the retail facility by redeveloping the site as an enclosed mall.

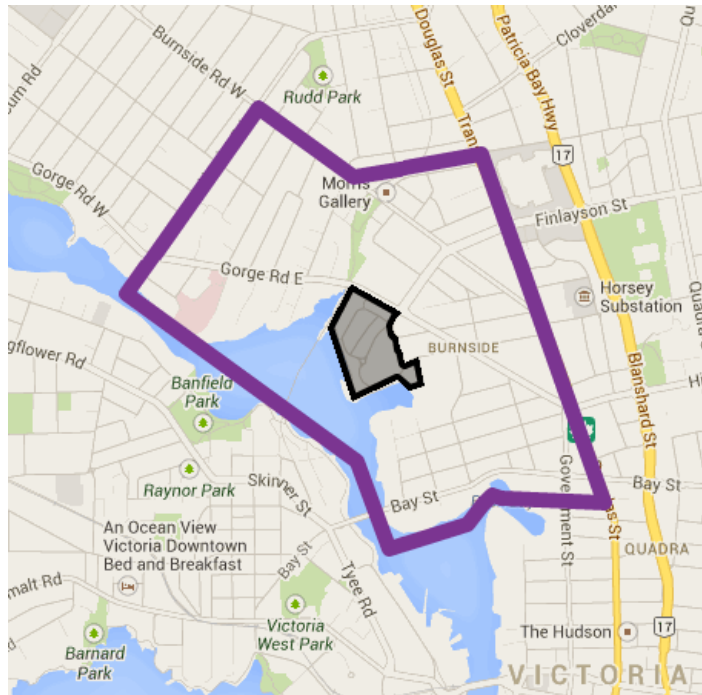
This initiative encountered opposition from local residents, but over time the site became an important asset to the community. Retired residents took advantage of the climate-controlled hallways to walk together for exercise. However, as the population aged, the mall became less successful, prompting another redevelopment, this time to the current mixed-use street-front format. Opposition to the project caused extensive delays, but it eventually proceeded, following further community consultations.

FRAM, as developer of the residential component, is currently building a series of mid-rise residential buildings that are attracting purchasers in their seventies. The developer notes that in a community like Don Mills that was first established as a series of large subdivisions, “everyone ages at the same time,” so it is important to have a suitable range of housing options available.



## 7.2 Selkirk Waterfront, Victoria, British Columbia

**Map 14 – Selkirk Waterfront study area (grey) and census tract (purple)**



### *Neighbourhood Composition*

Selkirk Waterfront is a neighbourhood in Victoria, British Columbia, situated on the George Waterway, two kilometres north of the downtown area. Built on the site of the former Victoria Sawmill, the Waterfront is a mixed-use development that provides space for office and commercial uses in addition to residential in a variety of mid-rise buildings. Like the Port Credit development, the Selkirk Waterfront is a brownfield project that benefits from its direct water access and proximity to downtown and local services in a walkable context.

Amenities within the Waterfront development include restaurants, a fitness centre and rowing club, a Montessori elementary school and a daycare, as well as direct access to the Gorge Waterway and the Galloping Goose Regional Trail. There are seven grocery stores within five blocks of the development. A pharmacy is a slightly longer walk, across the Trans-Canadian Highway/Douglas Street. Gorge Road Hospital is about 500 metres from the site.

### *Public Transportation*

Bus Route 11 provides regular service (quarter-hourly) from the Waterfront to downtown Victoria, and on to University of Victoria. Bus Routes 8 and 26 also serve the area, connecting it to neighbourhoods to the north and south.

### *Housing and Seniors*

The Selkirk Waterfront development consists of mid-rise rental and condominium buildings with units suitable for all age groups and family sizes. These include Boardwalk Residences, which offer one- and two-bedroom units ranging from 1,000 to 1,700 sq. ft., and 370 Waterfront Crescent, which houses 46 townhouse units, and the Selkirk Waterway Condominiums, which offer direct access to the waterfront and recreation trails in a

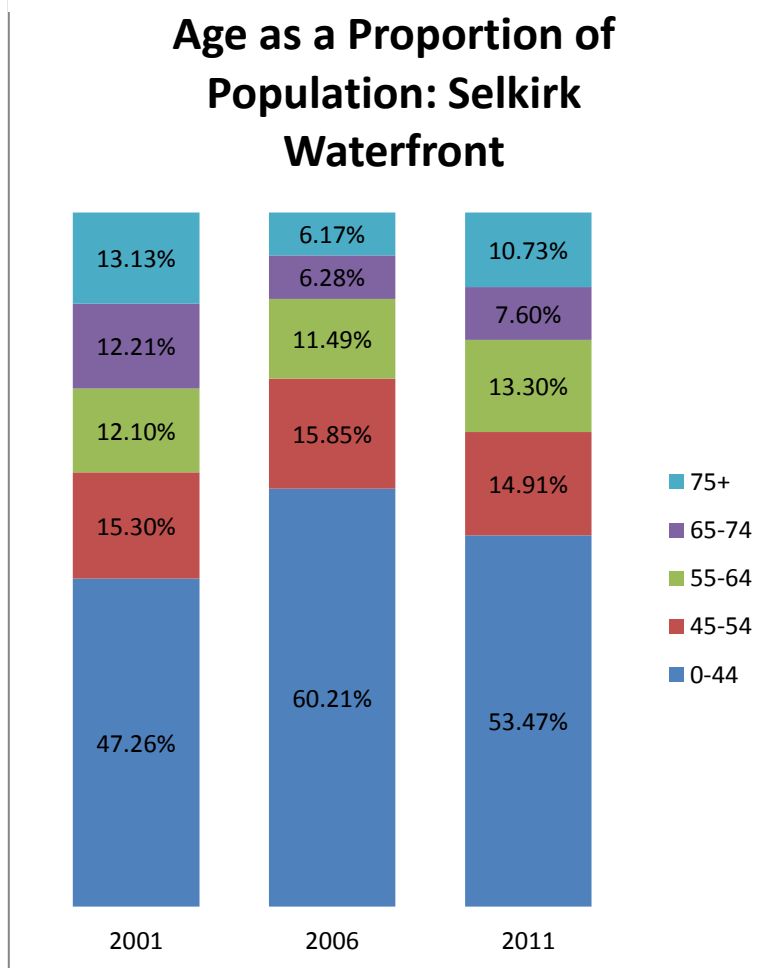
midrise context. The neighbourhood's final building is due to be completed in 2015, and "will have 51,000 square feet of offices on its upper four floors, 3,000 square feet of retail-commercial and eight higher-end condominiums facing the water."<sup>115</sup>

## Demographics

**Table 5 – Selkirk Waterfront demographics**

Selkirk Waterfront, Victoria, (Tract 9350012.00)					
	2001	2006	2011	Growth	Growth Rate
Total Population:	4,550	4,700	5,260	710	15.60%
Population 65+:	705	585	965	260	36.88%
Population 55-64:	440	540	695	255	57.95%

**Chart 3 – Age as a proportion of population for Selkirk Waterfront**



Although not as pronounced as in Port Credit, the population trends in the Census Tract that contains Selkirk Waterfront indicate that the 65+ older adult population is growing at twice the rate of the rest of the population, and that the 55–64 cohort at almost four times the normal rate.

While some of this increase is likely due to the normal aging process, the completion of the Waterfront in 2005 shows up as a jump in the overall population, followed by a strong increase in the older cohorts from 2006–2011.

<sup>115</sup> Wilson, Carla. "Selkirk: From mill to modern community: Twenty years later, last piece of development puzzle on track," *Times Colonist*, 3 November 2012. Retrieved from: <http://www.timescolonist.com/business/selkirk-from-mill-to-modern-community-1.1897#sthash.Q08CWHQc.dpuf>

As Chart 4 indicates, the older adult cohorts shrank as a proportion of the total population between 2001 and 2006, growing again to overtake the 2001 numbers in the 2011 Census. However, we see a consistent proportional growth in the 55–65 range during this time,

along with a relatively stable 45–55 population cohort.

These numbers suggest that some of the growth in older residents comes from the natural aging of the local population, especially between 2006 and 2012. It is also likely, though, that some growth has come from attracting new older residents. In either case, the area certainly appeals to older adults.

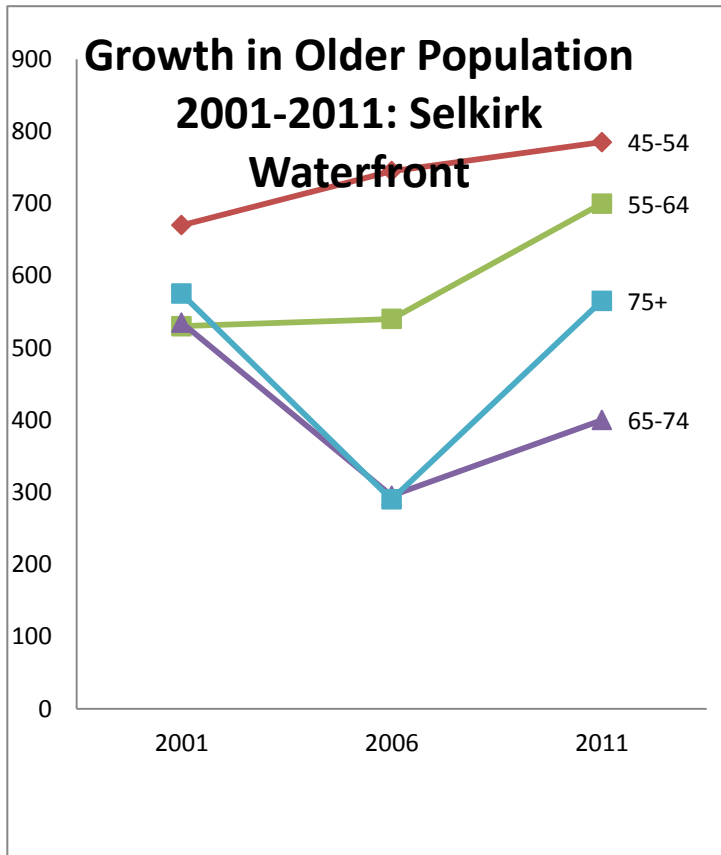


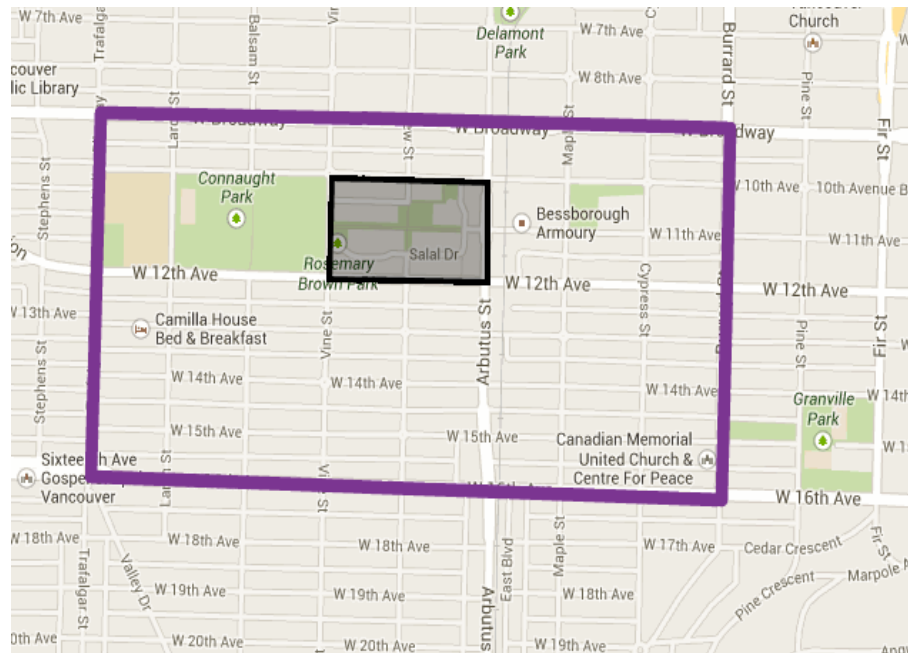
Chart 4 – Growth in older population for Selkirk Waterfront



## 7.3 Arbutus Walk, Vancouver, British Columbia

### *Neighbourhood Composition*

Arbutus Walk is a cluster of mid-rise condominiums built on the former site of a Carling O’Keefe brewery in the Kitsilano neighbourhood of Vancouver, British Columbia. Unique to the area, the development combines a central urban environment with access to several parks and a pedestrianized green way, which the City created by closing two blocks of 11<sup>th</sup> Avenue that formerly ran through the area.



**Map 15 – Arbutus Walk study area (grey) and census tract (purple)**

Although the buildings themselves are not mixed use, sufficient amenities surround the neighbourhood, including a supermarket one block away, a natural food store two blocks away, three pharmacies within two blocks of the development, a private elementary, middle and high school on the grounds, and a public elementary school directly across the street. A community centre and a public library are both within a 10-minute walk. A popular shopping district along 4th Avenue is six blocks north of the development. Nearby Arbutus Street also has some shopping, as well as a cinema, a dental clinic, and a bank. A grid street pattern, short blocks and sidewalks make the surrounding area a pleasant and safe walking environment.

### *Public Transportation*

The 99 B-line rapid transit bus, which provides express east-west service connecting the area to the University of British Columbia and the SkyTrain, stops on the northern edge of the development. In addition, two other bus lines run within one block of the development, which provide frequent service (less than 15-minute headways) north to downtown and south to the Fraser River.

## Housing and Seniors

Arbutus Walk buildings collectively have more than 1,000 residential units ranging from studio apartments to 3-bedroom flats and townhouses. The 12 buildings that make up Arbutus Walk were constructed between 1997 and 2001, and are four to seven storeys, with one building reaching eight storeys. Many buildings include fitness and communal spaces. Unit prices, while high by national standards, are commensurate with the local market. One building, Tapestry at the O’Keefe, is a retirement community of 42 units.

## Demographics

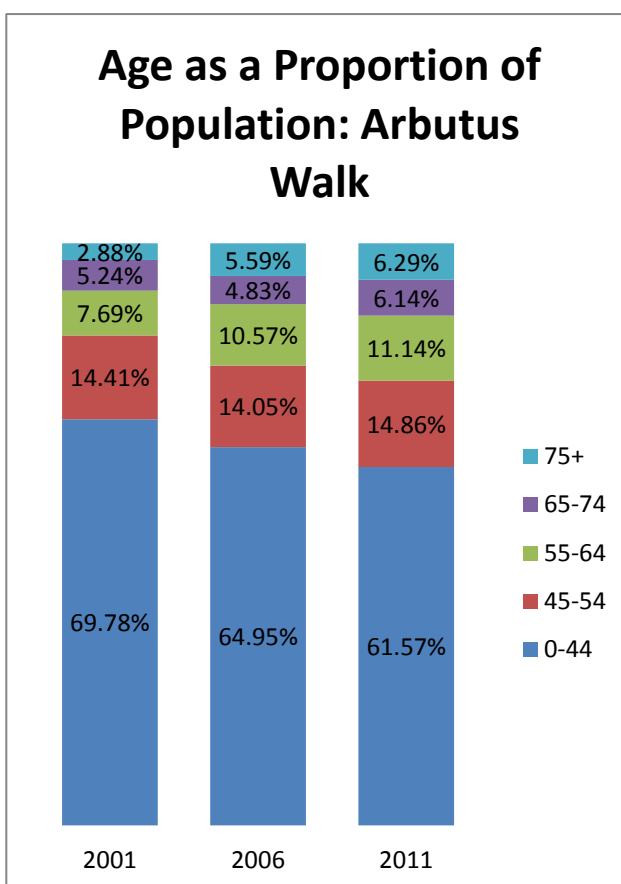
**Table 6 – Arbutus Walk demographics**

Arbutus Walk, Vancouver (Tract 9330041.02)					
	2001	2006	2011	Growth	Growth Rate
Total Population:	5,725	6,620	7,000	1,275	22.27%
Population 65+:	465	690	870	405	87.10%
Population 55-64:	440	700	780	340	77.27%

**Chart 5 – Age as a proportion of population for Arbutus Walk**

Arbutus Walk has shown remarkable growth in its senior and “senior-in-training” populations. Since 2001, the year when the final development was completed in the community, the census tract has seen significant overall population growth of 22.3%. However, in the older cohorts, the growth rate has tripled or more.

As shown in Chart 5, these older populations have not only grown in absolute terms, but also as a proportion of the overall population. The population 55 and over has grown from just under 16% of the area’s population in 2001 to almost 24% of the population in 2011. Moreover, each senior cohort—55–64, 65–74, and 75 and above—has grown during this period. A modest proportional growth in the 45–54 age cohort indicates that likely some of the growth in higher cohorts is due to aging, but a larger share is most likely a result of new residents moving in. It has not been possible to confirm the proportion of new



residents who are moving from the surrounding neighbourhoods. Anecdotal comments from local realtors suggest that the area continues to attract new residents from the mature neighbourhoods surrounding the project.

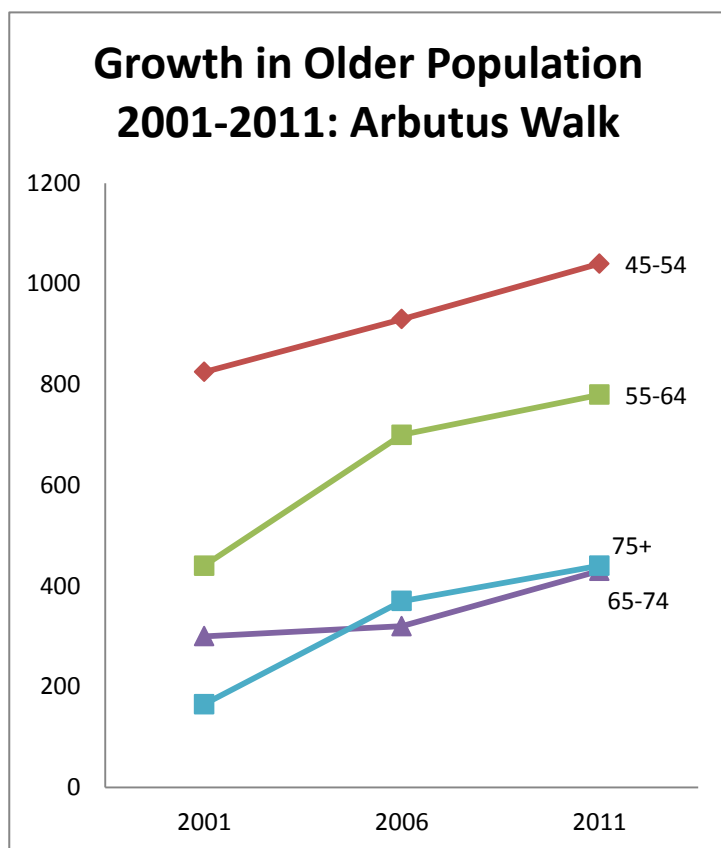
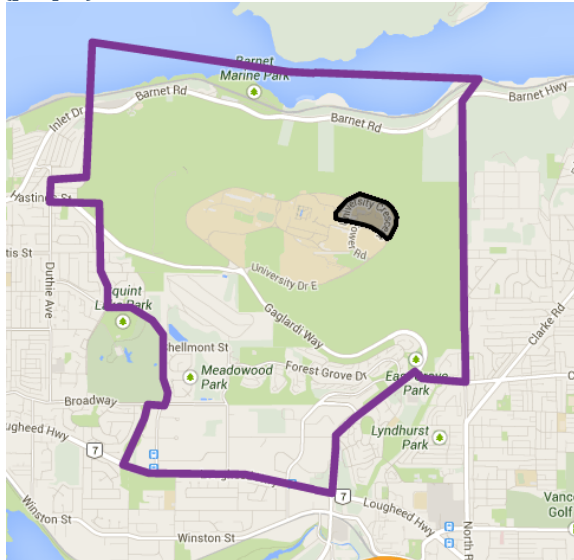


Chart 6 – Growth in older population: Arbutus Walk

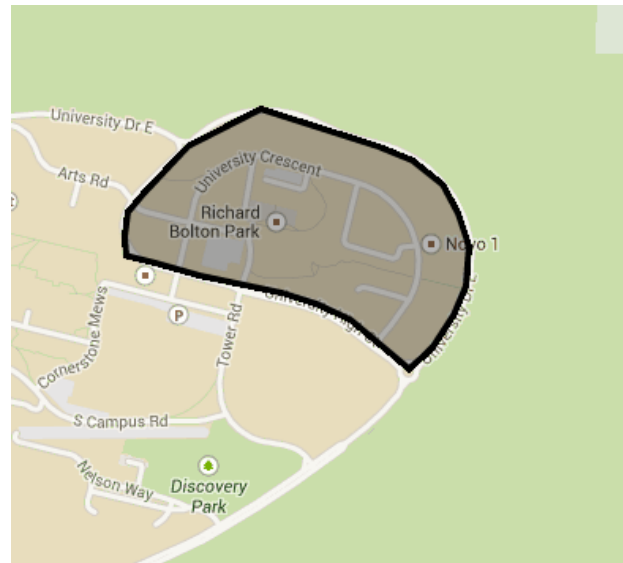
## 7.4 UniverCity, Burnaby, British Columbia

### *Neighbourhood Composition*

**Map 17 – UniverCity study area (grey) and census tract (purple)**



**Map 16 – Detail of UniverCity study area**



UniverCity differs from the other neighbourhood studies in that it is not integrated into an urban environment. Instead, it is a stand-alone community contiguous with Simon Fraser University at the top of Burnaby Mountain in the municipality of Burnaby, British Columbia. Currently housing about 3,000 residents, UniverCity is a planned, mixed-use community built at a pedestrian scale with a variety of housing options and amenities. These amenities include an elementary school, a daycare, a full-sized grocery store, a library, pharmacies, banks, shops (including an organic deli), and cafés.

About 22% of the UniverCity residents walk to work. While this high proportion may be attributed to the fact that a high percentage of residents work at Simon Fraser University, the design of the neighbourhood takes advantage of pedestrian shortcuts to maximize access to amenities. The Simon Fraser University Community Trust, which developed the project, subsidized retail business at the outset to ensure that new residents would get into the habit of purchasing groceries and other essentials locally.

### *Public Transportation*

The community is served by four bus routes operated by Translink, which connects the community with Vancouver, Burnaby, and New Westminister. The transit travel time to Burnaby, for example, is about 35 minutes. Discussions are under way to introduce a high-speed gondola, which would link UniverCity directly to the neighbourhoods at the bottom

of the mountain, making for easy and direct access. The 17-minute travel time from UniverCity to the Skytrain station at the foot of the mountain would be reduced to six minutes.

### *Housing and Seniors*

UniverCity has five neighbourhoods: (1) East Highlands, the oldest, having been completed in 2004; it has the largest number of residential options; (2) University High Street, which houses the commercial and cultural activity for the community as well as the only built-to-rent building in the area; (3) West Highlands; (4) The Slopes; and (5) South Neighbourhood, currently slated for development. Low- to mid-rise multiple family buildings are suitable for all age groups and family sizes. Housing options in these areas range from low-rise single family homes in The Slopes, to mid-rise, higher-density condominiums in the East Highlands.

### *Demographics*

**Table 7 – UniverCity demographics**

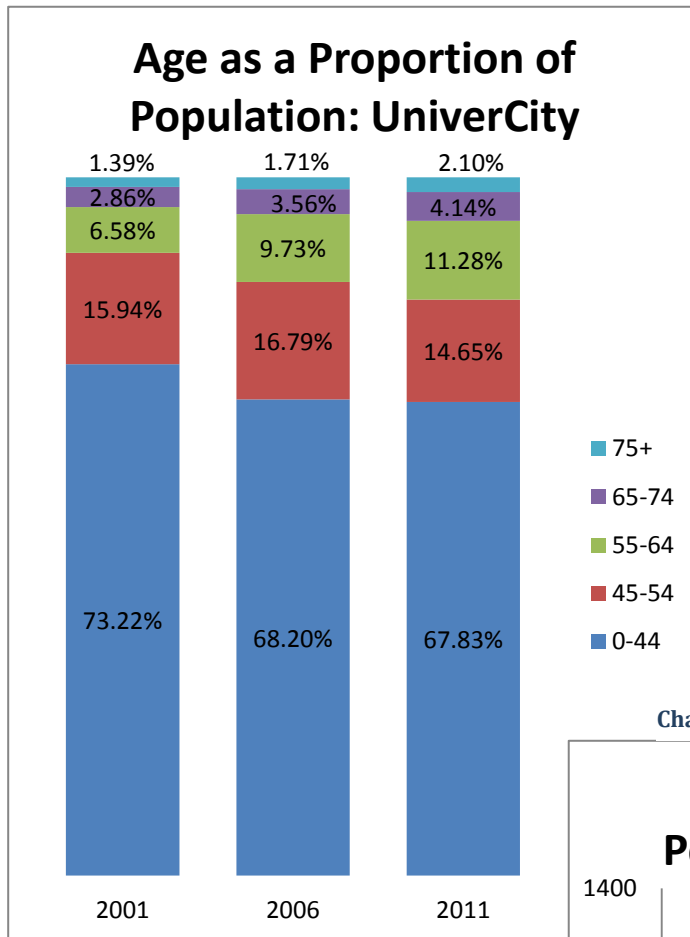
UniverCity (Tract 9330243.02)					
	2001	2006	2011	Growth	Growth Rate
Total Population:	6,460	7,295	8,330	1,870	28.95%
Population 65+:	275	385	520	245	89.09%
Population 55-64:	425	710	940	515	121.18%

The demographic shift for the UniverCity census tract should be interpreted with some caution for two reasons. First, the population of the development makes up only about half the population of the tract. In combination with the fact that the area of study is separated from the rest of the tract by a forested mountain slope, we cannot assume that changes in the amenities or built form in UniverCity will affect the desirability of the “lower” part of the tract for our target demographic.

Nevertheless, we can see a consistent increase in the 55–64 and the 65+ cohorts as a proportion of the tract overall. The initial jump for 55–64 year olds from 6.58% of the tract population to 9.73% is likely due to relocation, as the number of people in the 45–54 cohort also grows during this time. However, between 2006 and 2011, the proportion of 45–54 year olds decreased, along with an increase in 55–64 year olds, indicating that a large portion of this growth is likely due to an aging population. At the same time, though, growth in each cohort above 65 indicates that the development is attracting some older adults. Increased connectivity through a proposed gondola service or better bus connections may make this area more desirable to its target demographic.

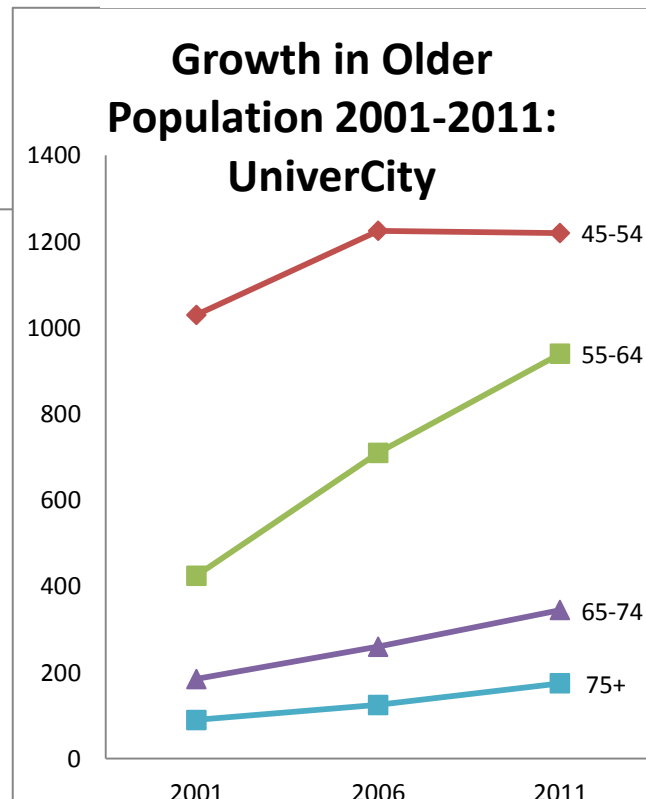


Chart 7 – Age as a proportion of population for UniverCity



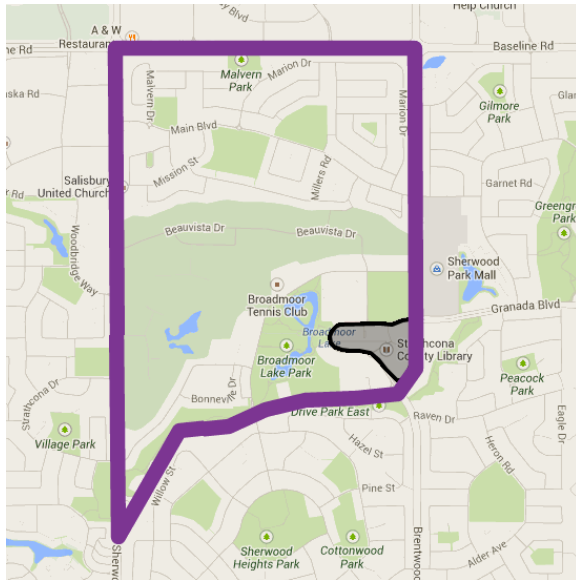
An important feature of UniverCity's high rise buildings is the adaptability of a number of units which are two stories. This structure allows the option of "locking off" the smaller portion of the unit on the lower floor, providing young residents with the option of renting out a self-contained unit to help with mortgage payments, or for older residents the option of living in the smaller unit and renting out the rest when they no longer need the space.

Chart 8 – Growth in Older Population for UniverCity



## 7.5 Centre in the Park, Strathcona County, Alberta

Map 18 – Centre in the Park study area (grey) and census tract (purple)



### Neighbourhood Composition

Centre in the Park is an infill development project in Sherwood Park, Strathcona County, Alberta. It is a mixed-use development, with the stated vision of “creat[ing] a centre for Strathcona County—a heart for our community.”<sup>116</sup> The neighbourhood amenities include a community centre with a library, a community meeting hall, an art gallery, a medical centre, an outdoor event space, and a wide promenade known as Prairie Walk that cuts through the development. The presence of Prairie Walk has increased the walkability of the

neighbourhood. However, because of its location in a low-density, suburban community, walkability is largely limited to the development itself, although the Sherwood Park Mall is directly across the street and accessible to pedestrians.

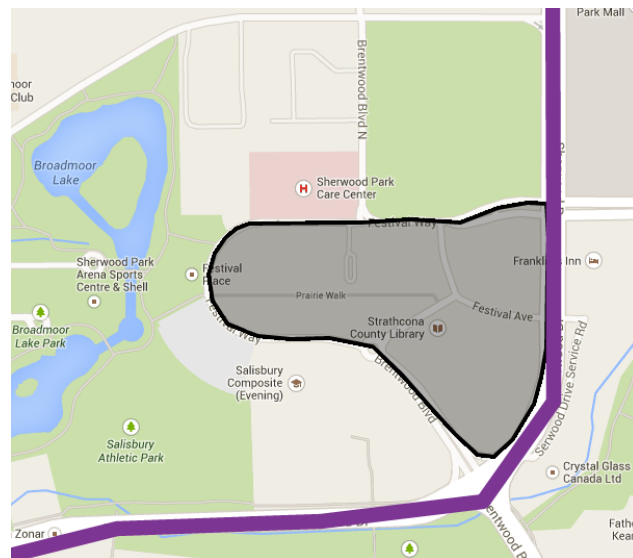
### Public Transportation

The Centre is on the Strathcona County bus route 425, which connects to Sherwood Park Station, and to buses to Edmonton. The bus runs with 15-minute headways between 5:30 a.m. and 6:00 p.m., and the trip to the station is scheduled at less than 10 minutes.

### Housing and Seniors

Housing in Centre in the Park is still under development, but to date, many of the units have focused on senior and retirement facilities. These include Bedford Village and Bedford

Map 19 – Detail of the Centre in the Park study area



<sup>116</sup> <http://www.strathcona.ca/departments/planning-development-services/special-projects-initiatives/centre-in-the-park/>

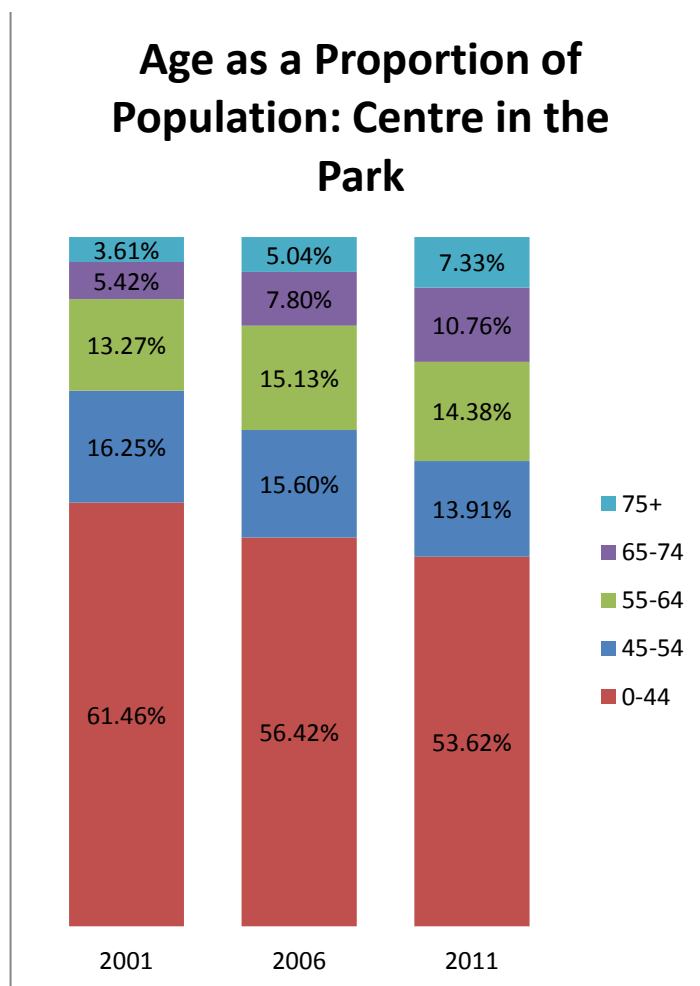
Manor, which together have 150 units, and Reflections—currently under construction—which will hold another 80 units. Each of these developments, along with any forthcoming buildings, are mid-rise, some with businesses on the first floor, such as cafés and restaurants.

## Demographics

**Table 8 – Centre in the Park demographics**

Centre in the Park, Strathcona County (Tract 8350101.01)					
	2001	2006	2011	Growth	Growth Rate
Total Population:	5,540	5,255	5,390	-150	-2.71%
Population 65+:	500	675	975	475	95.00%
Population 55-64:	735	795	775	40	5.44%

**Chart 9 – Age as a proportion of population for Centre in the Park**

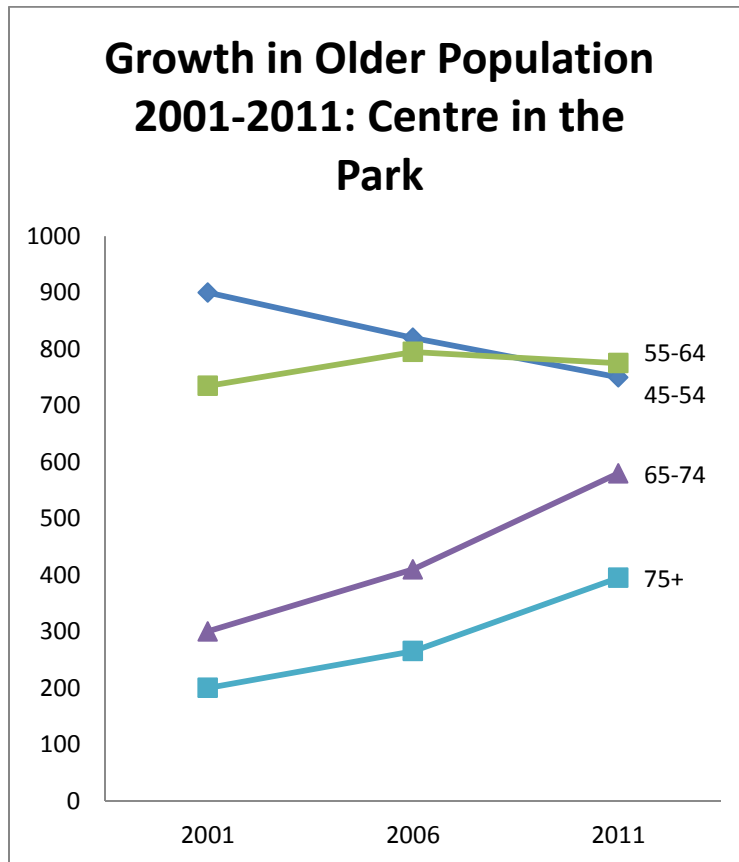


Despite an overall decline in population for the area over our study period, we still see a significant growth (almost doubling) in the population of 65 and over, as well as modest growth in the 55–64 cohort. The jump in the 55–64 cohort between 2001 and 2006 is larger than the shrinkage in the 45–54 population, indicating that some of the growth is due to aging, but at least some is likely due to people moving to the area.

Despite a small reduction in that cohort between 2006 and 2011, the data indicate a possible modest influx of pre-seniors moving to the area. Likewise, we see a doubling in the proportion of the population 65 and over, which, while largely due to the presence of the retirement

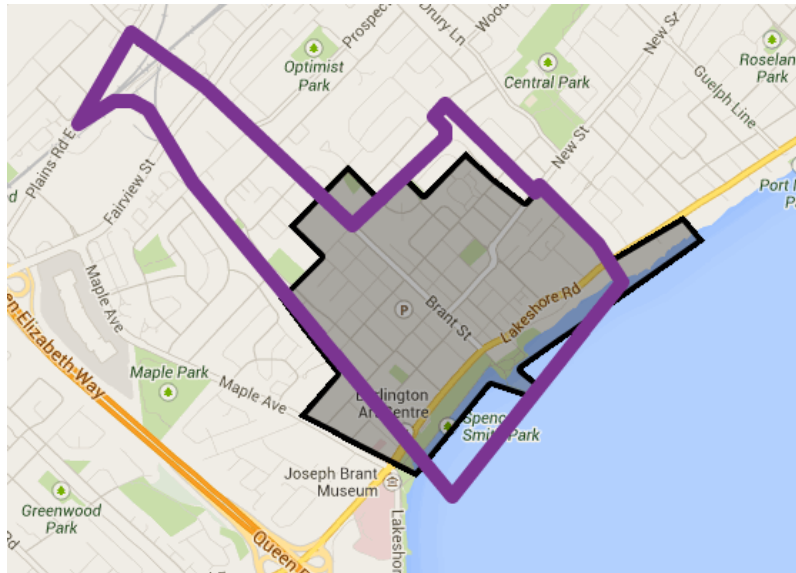
residences, cannot be fully explained by the addition of the 200 or so units targeted to this demographic.

Chart 10 – Growth in older population for Centre in the Park



## 7.5 Downtown Burlington, Ontario

### *Neighbourhood Composition*



**Map 20 – Downtown Burlington study area (grey) and census tracts (purple)**

Burlington, Ontario, is a city of approximately 165,000 people, situated on Lake Ontario, 55 km west of Toronto. Its downtown is a vibrant, mixed-use community close to the waterfront, home to about 6,000 jobs and 11,000 residents in an area of about 1.75 square kilometres. Amenities include independent retail and restaurants, as well as a supermarket, two pharmacies, two medical centres, seven banks, several parks, and the

Burlington Arts Centre. The City sponsors several annual festivals, including a Canada Day celebration, a Children's Festival, and the Sound of Music Festival. The waterfront area includes a recreation trail and outdoor performance space. Short blocks and small street-level shops make walking easy and enjoyable.

### *Public Transportation*

Downtown Burlington functions as one of five hubs for city buses, connecting it with most areas of the city, as well as GO regional train and bus stations. Most lines run with 15-minute headways during peak hours, and 20–30 minute headways at other times.

### *Housing and Seniors*

Much of the downtown population lives in mid-rise condominium buildings clustered along Lakeshore Road, and Brant, John, and Elizabeth Streets, which intersect with Lakeshore Road. Some single-family detached and semi-detached houses are available within walking distance.

Although the senior population has noticeably increased with the addition of attractive mid-rise buildings and amenities, retailers have expressed their frustration with the relatively low dollar contribution made by this group. It seems that the prevalence of older



residents to “follow the sun” during winter months has caused retailers to overestimate the value of their contribution to revenue.

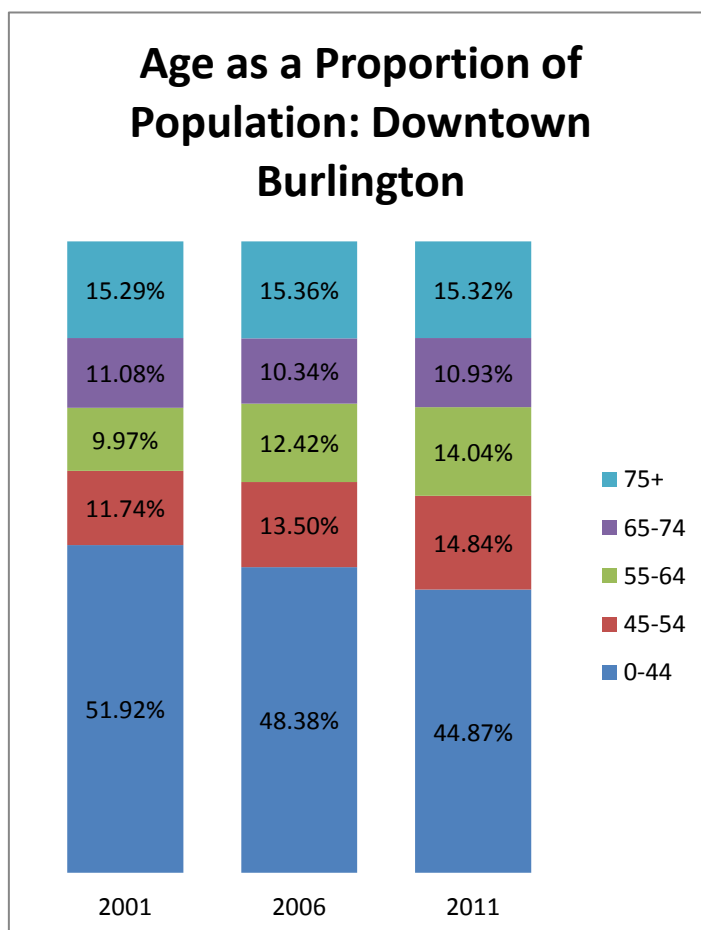
## Demographics

**Table 9 – Downtown Burlington demographics**

Downtown Burlington Tracts 5370213.00 and 5370206.00					
	2001	2006	2011	Growth	Growth Rate
Total Population:	6,770	6,965	7,410	640	9.45%
Population 65+:	1,785	1,790	1,945	160	8.96%
Population 55-64:	675	865	1,040	365	54.07%

Downtown Burlington has seen steady overall population growth over the study period. But unlike other neighbourhoods in this study, the number of residents aged 65 or higher has grown more slowly. In looking at the population distribution in Chart 6, we can see this

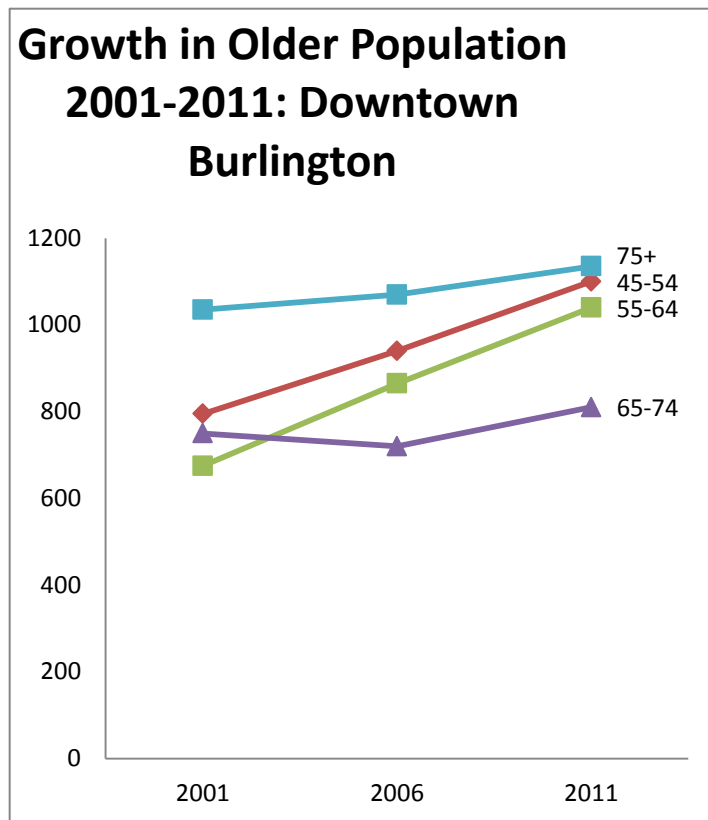
**Chart 11 – Age as a proportion of population for Downtown Burlington**



drop-off in the 65–74 cohort, with the 75+ cohort remaining stable. (Note that as the general population grows, the lack of change in the proportion of a particular cohort still represents an increase in absolute numbers.)

Conversely, we see growth in the 55–64 “seniors in training” cohort—at a rate more than five times that of the total population. This trend supports the idea that mixed-use, walkable, transit-accessible areas appeal to those looking for an attractive location for retirement and older adulthood. A growth in the proportion of the population in the 45–54 cohort over this period confirms that most of the new 55–64 residents are moving to the area, rather than aging in place in some other location.

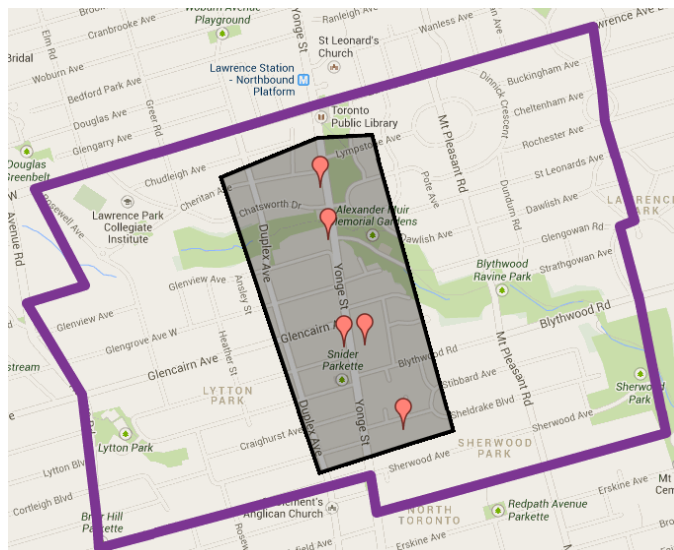
Chart 12 – Growth in older population for Downtown Burlington



## 7.6 North Yonge Street, Toronto, Ontario

### *Neighbourhood Composition*

**Map 21 – North Yonge Street study area (gray), Census data boundaries (purple) and developments (red)**



The central spine of this neighbourhood is Yonge Street, which provides extremely high levels of walkability, local amenities, and access to public transportation. The study area is bisected by Muir Gardens, which connects to a series of ravines, providing excellent access to green space. Pharmacies, restaurants and cafes are in close walking distance, as are two medical centres and a branch of the Toronto public library.

### ***Public Transportation***

The study area is extremely well served by public transportation. Lawrence subway station lies one block north of the area's boundary, with Eglinton Station six blocks south, connecting the area to downtown Toronto. In addition, Bus 97 runs along Yonge, connecting the two stations, and bus 52 runs east-west along Lawrence, one block north of the study area, connecting the neighbourhood to the west arm of the Yonge-University subway line and points west.

### ***Housing and Seniors***

Recent residential developments in the study area include Alexandra Gate, Residences of Lawrence Park, Muir Park Residences, and St. George on Sheldrake. Together, these buildings account for 249 units in mid-rise buildings, 6-7 stories tall. Developed between 1997 and 2001, these buildings do not provide the level of amenities typical of larger developments in Toronto, but instead depend on the diversity of the neighbourhood for community resources. A range of unit sizes is available from 1,200 square feet in Alexandra Gate, to 3,000 square feet in St. George on Sheldrake.

Alexandra Gate is a six-storey residential condominium with retail at grade located on the west side of Yonge at Alexandra Boulevard. It was built in the early 1990s amid controversy, surviving an appeal to the Ontario Municipal Board by Toronto City Council (which overruled staff support for the project). Ironically, a picture of the building appeared on the cover of the 2005 Official Plan.

The building was designed to meet the minimum legal requirement for amenities because the developer perceived that desirable amenities were readily available in the neighbourhood. The developer/architect recommends that developers "do their homework" about pricing and the needs of the local community because the profit is in the last 10% of units. Developments that begin construction before a significant proportion of units have been sold must maintain a sales office throughout, essentially risking the profit margin. The 31 units range in size from 600 sq ft to 1300 sq ft, with generous terraces.

At the time of development, the majority of new owners were aged 55-64, although a number were older local residents and some of the smaller units were purchased by parents or grandparents for their children or grandchildren. There is low turnover among the units, and prices have held up well since the time of construction.

The developer of this project recommends that in newer neighbourhoods where significant change can be anticipated, consideration be given to ensuring that ground floor units be convertible to retail or other non-residential use. Although the additional height

(and requirements for fire separation and access to waste removal/loading at the rear of a building) adds a marginal cost to the development it nevertheless makes it possible to introduce retail at such time as the market dictates is feasible.

St. George on Sheldrake also offers unique architectural style with large private outdoor areas. The project comprises two buildings: one is an adaptive re-use of a former church (St. George's), while the second building mimics the built form of the church. Units are stepped back at each level, allowing for large, private outdoor spaces; for residents who have given up a back yard by moving from single family dwellings, this has proven to be a compelling design feature that has the added benefit of maintaining resale prices at a high level.

### *Demographics*

**Table 10 – North Yonge Street demographics**

North Yonge Street, Toronto					
	2001	2006	2011	Growth	Growth Rate
Total Population:	15,261	15,586	16,246	985	6.45%
Population 65+:	1,425	1,515	1,785	360	25.26%
Population 55-64:	1,250	1,600	1,725	475	38.00%

Instead of basing the study area on one coordinated development, we captured a neighbourhood with a number of similar developments that met our criteria, all of which were built within a period of five years. The map for this area includes the locations of these developments as red points. Due to the more dispersed nature of these buildings, population counts were derived from a combination of census tracts and dissemination areas.

Despite a modest growth rate of 6.45% overall over this period, the study area for Yonge Street has seen a noticeable rise in older adults, especially those in the 55–64 age cohort. Indeed, the majority of the growth during this period likely came from older adults. We see a small increase in population in the 45–54 bracket as well, indicating that not all growth in the older groups is due simply to aging; older people have been moving into the area.

Chart 13 – Age as a proportion of population for North Yonge Street

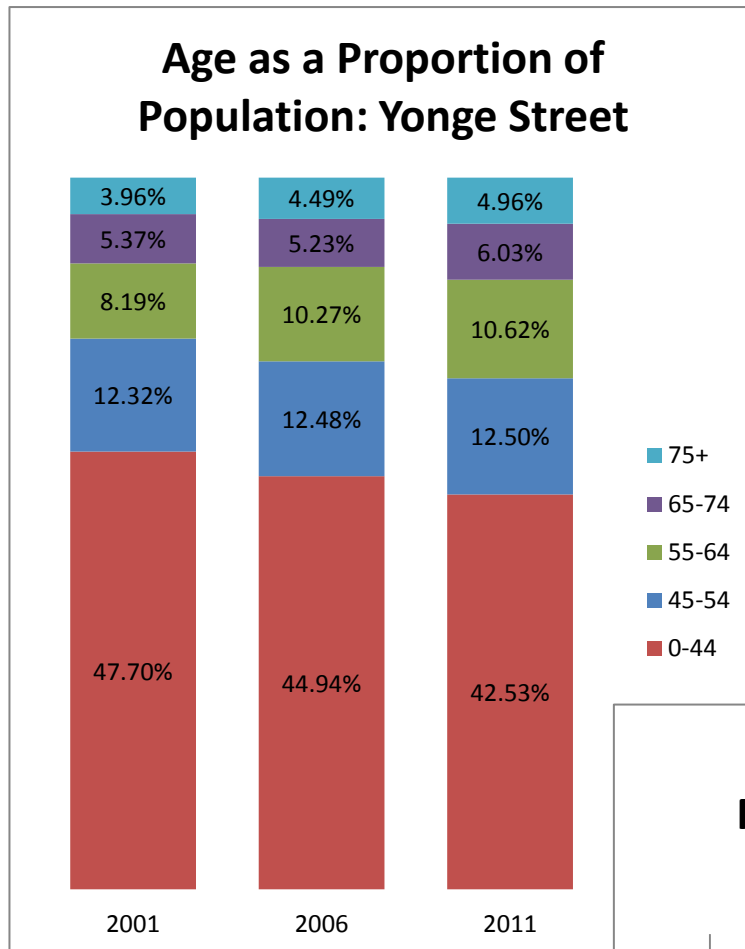
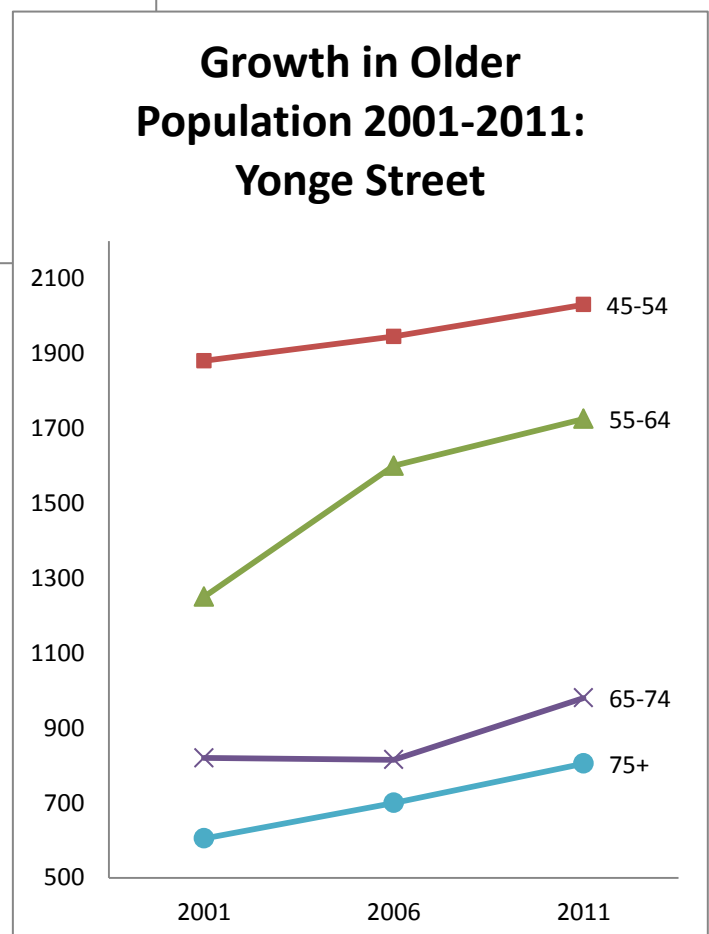


Chart 14 – Growth in older population for North Yonge Street



## **8. How Age-Friendly Thinking Can Help Support The Big Shift**

The Big Shift is a program launched by the Region of Waterloo that aims to inspire regional residents to reduce their dependence on cars by increasing their use of public transit and engagement in “active transportation” (walking, cycling, etc.). This study was intended to determine whether taking the needs of an aging society into account can help advance these goals. The study is organized around four linked questions that focus on different but interrelated aspects of meeting this challenge. These were:

1. How widespread is the practice of re-positioning a community as transit-friendly?
2. What does it take to make a successful rapid transit community – what conditions are necessary and what strategies actually work? What is the time frame for measuring progress?
3. To what extent do “transit friendliness” and “age friendliness” fit together?
4. What factors drive the decisions of seniors to move to housing forms consistent with transit use?

This chapter summarizes our conclusions and recommendations at three scales of intervention:

- Policies and operational strategies to be implemented at the regional or city-wide scale;
- Actions or initiatives applicable to further intensification and enhancement of the Region’s rapid transit corridor;
- Practices to be applied at the neighbourhood scale, focusing primarily on areas outside the corridor where residents have higher levels of car dependence; such areas face greater challenges in becoming both transit-friendly and age-friendly.

Wherever possible in this report, we have acknowledged where the Region, regional organizations, or area municipalities have already begun to address a particular issue.

### **8.1 Regional-Scale Policies and Operational Strategies**

Overall, the examples show that real change takes a decade or more to realize and requires a package of policies that cumulatively and consistently support transit-supportive development and age-friendly services—from official plans and zoning, to the implementation of transit networks with good coverage of the entire built-up area, to service planning that incorporates the needs of seniors and ensures that their voices are heard in the transit planning process. In all likelihood, the true beneficiaries of policy changes implemented today will be the generation of older adults who are currently in



their fifties and early sixties, because, as our research shows, the behavioural change implied by The Big Shift will take time, particularly in the outer edges of the Region where most residents are currently car-dependent.

**Seniors are not a homogeneous group:** As noted elsewhere in this report, the Region is becoming increasingly diverse. The 2011 census counted 86 distinct ethnicities. There is already a high proportion of visible minorities of people aged 65+ (7.7%) and 40% of these seniors are immigrants to Canada. The “pre-senior” cohort (aged 55–64) has almost exactly the same population (54,000+), with a higher proportion of visible minorities. The experience of Manchester, U.K., which explicitly acknowledges the diversity of its aging population, takes this diversity into account when planning for services, including transit. Manchester’s approach provides a useful model for Waterloo.

**Consistency and persistence are necessary attributes for effecting change:** Although official plan policies tend to be abstract and aspirational, when taken seriously and applied consistently over a long period of time, they can have considerable impact. As noted earlier, Ottawa’s success in blending land use and transportation planning began when the former Region of Ottawa-Carleton and the former City of Ottawa set out to focus development around existing or planned transit stations, implement requirements that major shopping centres be within a five-minute walk of a transit station, and require that subdivision plans put all new homes within walking distance of a transit route.<sup>117</sup> The latter policy may well be aspirational, but if such a target is factored into the review of development applications, it can have a positive effect.

**“Mainstreaming” positions age-friendly issues within the broader context:** Our research also highlighted the benefits of we have called “mainstreaming”—an approach taken in Winnipeg, where the needs of an aging population are accommodated within a broader plan that emphasizes diversity. Too often, seniors are treated as a “special-needs” group. Our research confirms for us that mobility is a much broader, more complex concept than the physical act of transporting oneself from place to another. A Quebec-based gerontologist, L. Ling Suen, has written that “the freedom to move is life itself.”<sup>118</sup> Invariably, this fact strikes home only when an older adult is no longer able to enjoy independent mobility.

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<sup>117</sup> A paper prepared by a master’s student in Planning at the University of Toronto offers a new methodology to accurately measure the actual population served by a transit hub or station, based on the actual route used to reach the hub on foot, versus the theoretical approach commonly taken by transportation planners, which estimates population within a rigid 500-metre or 800-metre radius. See “Assessing and improving walkability conditions in the vicinity of suburban GO station areas,” Jacob Nigro, University of Toronto, unpublished M.Sc. Pl. paper, 2014.

<sup>118</sup> This is also the title of a report on transportation in Ontario by the Ontario Advisory Council on the Physically Handicapped and Ontario Advisory Council on Senior Citizens, published in 1987.

**Transit-oriented development and age-friendly development are not necessarily synonymous:** Portland, Oregon, has implemented transit and transit-oriented development, but it is unclear whether the city has successfully turned drivers into transit users, or whether it simply attracts residents who already prefer to use transit.

The Portland example also raises the question of whether typical high-density transit-oriented development (TOD) is also age-friendly and whether investing in TOD may occur at the expense of the improvement of more isolated areas, creating geographic inequities that could hurt seniors and soon-to-be seniors, many of whom live in environments that are inappropriate for aging in place.

Arlington, Virginia, has seen considerable TOD and high levels of transit use, but its policies have had about 30 years to bear fruit. Moreover, transit use by those living outside the transit corridor has been largely unaffected by the County's policies. However, the County does provide examples of policies that can encourage TOD close to transit lines.<sup>119</sup>

**Age-friendly perspectives benefit from changes to service delivery as well as innovative policies:** Older adults do not automatically choose public transit if they lose their ability to drive cars or if they relocate to neighbourhoods that do not require complete reliance on cars. Two barriers need to be addressed by transit operators hoping to persuade older adults to use transit more readily.

First, relatively few older adults (starting with people aged 55–64) in the Region are in the habit of taking transit regularly. Educational programs designed to engage seniors and increase their level of comfort with relying on transit are now becoming commonplace. Grand River Transit already provides such programs to seniors on request.

Second, staff delivering transit services must be attuned to the needs and sensibilities of older adults. The five A's (Availability, Accessibility, Acceptability, Affordability, and Adaptability) described in this report are a good place to start in terms of addressing this requirement.

Municipal decisions to invest billions of dollars in rapid transit inevitably create day-to-day challenges related to the funding of operations. The Region has had this experience with its LRT project. With pressure building to make cutbacks on bus service in outer (car-dependent) suburban neighbourhoods, the Region might wish to consider exploring the potential for new partnerships with private-sector vendors to complement the Region's extensive and continued commitment to enhancing public transit service.

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<sup>119</sup> Another example is provided by the City of Dallas, where \$1.2 billion in development has been constructed within five minutes of DART transit stations. Similarly, Minneapolis claims that 50% of passengers using the Hiawatha LRT through downtown Minneapolis are "new to transit." See "Mississauga Office Strategy," Canadian Urban Institute, 2008.

Furthermore, with the advent of mobile technology applications, today's "pre-senior" and "senior" populations are potentially more open to using such innovations to preserve mobility when public transit cannot meet their specific needs. Whether it is for scheduling shopping trips, making medical appointments, or travelling to entertainment venues, newly available "apps" facilitate timed response trips and opportunities to share taxis with others with compatible trip requirements.

### **Recommendations**

- The Region and Grand River Transit should consider the "Five A's" as a package in planning that will help seniors make the transition from car use to transit use and that programs be developed to ensure that staff are attuned to the sensitivities of older adults with respect to the transit experience.
- The Region and Grand River Transit may wish to explore the option of partnerships with the Region's three local hospitals, major shopping centres, and BIAs to investigate the potential for augmenting transit service with timed response and shared taxi services using new and emerging "app" technologies.

## **8.2 Enhancing the Region's Rapid Transit Corridor**

**Create incentives to make age-friendly and transit-friendly development attractive to developers:** The Region of Waterloo has already made considerable progress over the past decade towards establishing favourable conditions along its rapid transit corridor that will support increased transit use when the LRT/BRT project is completed. Arlington, Virginia, has been successfully pursuing transit-oriented development in association with the Washington Metro for several decades. The County prepared station plans that established ground rules for design, public art, and other amenities, then took the unusual approach of publicizing its "preferred" densities for development close to the Metro stations and negotiated with developers on a site-by-site basis.

Adapting this philosophy for the Ontario context using tools available through the Ontario *Planning Act*,<sup>120</sup> the Region might wish to consider establishing pilot zones for the application of development permits, an approach currently proposed in the City of Toronto in conjunction with the Eglinton Crosstown LRT project.

The development permit system (DPS) introduces a measure of clarity and predictability to facilitate intensification of a neighbourhood in a way that complements an investment such

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<sup>120</sup> Ontario Regulation 608/06 implements policies related to the development permit system outlined in the Strong Communities Act (2004) and confirmed in the Provincial Policy Statement (2005) and Planning and Conservation Land Statute Law Amendment Act, 2006 (Bill 51).

as the LRT. The content of a DPS is often described as a “cross between a zoning by law and a secondary plan”<sup>121</sup> with features of site plan control and the ability to implement concepts traditionally implemented through design guidelines. The process is collaborative in that municipal staff, local residents, and potential developers work together to develop a common vision that is articulated through development criteria and standards such as densities, heights, setbacks, and access.

As the DPS replaces traditional zoning, it is typically introduced on a pilot basis. Following consultations, a by-law covering a specific area is adopted by the appropriate authority. A key benefit to developers is the “return on investment” for time spent at the outset to establish trust and common ground with the community. The DPS approach is also well suited to incorporating age-friendly criteria related to sidewalk design, access and ramps, signage, and investment in amenities such as accessible public washrooms. The advantage to the municipality (and therefore community groups) is to invest in the front end of the process knowing that appeals to the Ontario Municipal Board will occur only if someone is prepared to appeal the entire by-law.

Of 70 or more new developments built or planned in Waterloo’s RT corridor over the past decade,<sup>122</sup> approximately half are residential or have a residential component as part of a mixed-use project. A few projects are student housing, while several are affordable housing or retirement residences. The Region’s Transit Oriented Development policies (and comparable policies in area municipal plans) have no doubt helped in this regard. The Region’s commitment to implement TravelWise Individualized Marketing programs will also support transit use by residents of the corridor.

As development continues, however, it will be important for the Region and its municipal partners to ensure that project designs, site plans and building orientation take advantage of every opportunity to create attractive, accessible housing that works well for people at all stages of their life course, with emphasis on the needs of older adults. At the scale of the site plan, transit-oriented development is not necessarily “age-friendly”<sup>123</sup> unless special attention is paid to the needs of seniors.

The value of introducing corridor-specific guidelines is that these would take into account the needs of intensification development practices, which differ from conditions in greenfield situations. In our interviews with developers for this project, we were told that infill and intensification is often more time-consuming—and therefore more costly—than

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<sup>121</sup> Presentation to the Canadian Urban Institute, December 2013 by Toronto’s Chief Planner, Jennifer Keesmaat.

<sup>122</sup> As identified on the Region’s development corridor map, 2012.

<sup>123</sup> For example, for retirement residences and projects targeting older adults specifically, it would make sense to encourage developers to provide sheltered plug-ins and pathway access for mobility scooters.

greenfield projects. Incentives that acknowledge this limitation and attempt to compensate for complexities without allocating additional density could be beneficial to leveraging the already strong critical mass of development interest in the corridor.

A potential pilot location for the development permit system and complementary policies was identified in The Region of Waterloo's *Community Building Strategy*.<sup>124</sup> The former Rubber Machinery Shops (RMS) site, closed in 2009, is close to the future Grand River Hospital transit stop. The site could be connected to the transit corridor through the hospital grounds or along Green Street. Several smaller sites have also been identified as having redevelopment potential (there are many surface parking lots in this area). To our knowledge, there are currently no developments in progress.<sup>125</sup>

The area contains a cluster of medical services that complement the hospital's facilities. It is equidistant to the two main urban areas—Uptown Waterloo and Downtown Kitchener—which could be reached by a short transit trip in either direction. The area has food shopping (Central Fresh Markets), pharmacies, a couple of Tim Horton's outlets, two churches, a high school, the Don McLaren arena, YMCA community services, and some high-rise development (such as Kings Tower), but could benefit from additional amenities. The surroundings include low-rise residential buildings and green space.

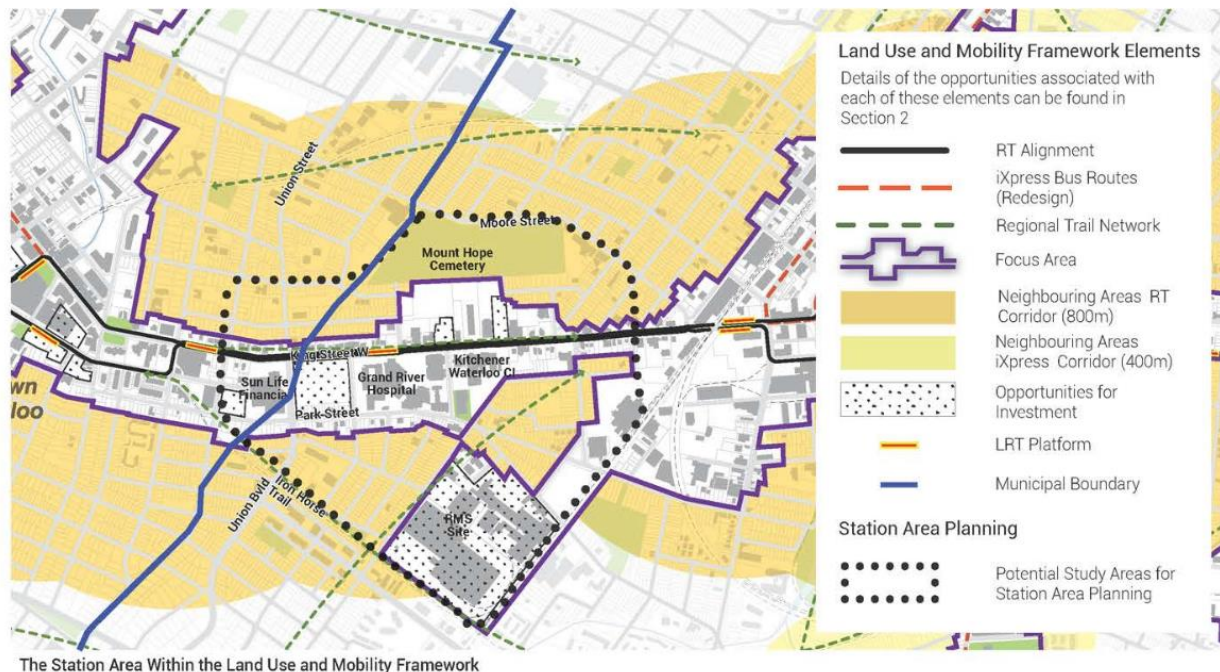
Because of the presence of the hospital, the school, and the market<sup>126</sup> (which stays open until midnight), the area is well used throughout the day and evening. At present, the area does not offer much in the way of support for walking, but careful infill and the creation of pedestrian-friendly spaces, as suggested in the *Community Building Strategy* could, over time, make the area more walkable.

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<sup>124</sup> See Section 5, pages 110-11.

<sup>125</sup> At least according to the July 2012 listing of new and existing development shown at <http://www.regionofwaterloo.ca/en/aboutTheEnvironment/resources/fullmapandlistings.JPG>

<sup>126</sup> The market offers shuttlebus service to residents of Queen-Margaret Place in Kitchener and Waterpark Place in Waterloo.



**Map 22 – The Grand River Hospital area in Kitchener-Waterloo**

Given the development potential in this district, a pilot project using a development permit system to encourage infill and reurbanization might be appropriate. The Region and the City of Kitchener together could determine the desired outcomes and performance standards, and encourage developers to propose residential and mixed-use buildings that meet these standards, not unlike the approach used in Arlington.

### **Recommendations**

- The Region should consider identifying select neighbourhoods in the RT corridor to pilot the development permit system as a collaborative way to build on the potential for combining transit-friendly and age friendly development practices.
- The Region and its municipal partners should consider adopting age-friendly site plan guidelines for the RT corridor, potentially incorporating concepts developed for the Peel Healthy Development Index, to be used during the development application process.
- The Region and its municipal partners may also wish to consider adopting differential development charges for transit- and age-friendly projects in the RT corridor as an incentive to invest in additional site-specific urban design.

**Ensure that transit-friendly and age-friendly development remains affordable:** The experience of places like Portland, Oregon, has shown the potential for unintended consequences as a result of improving the desirability of areas within specific transit



corridors. One such impact is that prices tend to rise as a result of actual or perceived improvements in accessibility. This effect is reflected in higher tax assessments as well as raised expectations of developers and investors in terms of the ratio to development potential and land value. For this reason, the RT corridor should be viewed as a priority location for any affordable housing opportunities that arise, particularly those on surplus government-owned lands or land otherwise suitable for redevelopment.

Although the focus of Regional affordable housing policy is currently on developing dedicated subsidized rental housing projects, there may be opportunities to establish official plan policies to encourage the inclusion of affordable rental units in market housing.<sup>127</sup> Such units are indistinguishable from market units, and they would be aimed at a different segment of the market than those currently offered.

### ***Recommendation***

- The Region should consider modifying its affordable housing strategy by identifying the RT corridor as a priority location for affordable housing projects for the community at large as well as older adults.

## **8.3 Neighbourhood-Scale Policies and Practices**

### **Create age-friendly environments to facilitate aging in place in the neighbourhood:**

When aging residents living in car-dependent neighbourhoods suffer a loss of mobility (which can range from loss of a driving licence to reduced stamina that restricts the distances that can be easily managed on foot), their situation affects not only their individual quality of life, but also the wider community.

The cumulative impacts of reduced personal mobility are felt by the owners of local restaurants, grocery stores, pharmacies, and entertainment facilities, whose businesses are affected when the number of potential customers or clients for these services falls below a certain level—or because the remaining residents are spending less or are unable to access the stores or services due to reduced mobility. A reduction in customer visits can result in increased store vacancies or declining levels of service in surviving stores and community facilities.

A common theme in this report, implicit in the neighbourhood case studies, is the opportunity to stimulate positive change by creating an age-friendly environment conducive to “aging in place in the neighbourhood.” Redevelopment of brownfield sites or

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<sup>127</sup> This model has operated successfully in the City of Toronto in the St Lawrence Neighbourhood since the 1970s.

failing retail plazas can help launch a period of renewal, in part because their size reduces the need for time-consuming, costly land assembly.

As noted earlier in this report, researchers at Queen's University<sup>128</sup> have developed a methodology for categorizing neighbourhoods on the basis of transportation criteria. Starting with neighbourhoods identified by Queen's as "auto suburbs" and "exurban areas," the Region could develop additional criteria to decide which neighbourhoods should be considered priority areas for retrofitting. These would be areas characterized by:

- A higher-than-average percentage of single-family dwellings
- A high proportion of two-person households or "household maintainers" over 55
- Few amenities
- A road network that is difficult to serve with transit
- Low levels of "walkability" as a result of poor connectivity between blocks
- Large, underperforming properties that lend themselves to redevelopment.

Such a strategy could function as an "early warning tool" to help decision makers, planners, developers, and investors focus their efforts in areas of the Region where there is most potential to create a more attractive environment for older adults *before* conditions deteriorate or before older residents are forced to move out of the neighbourhood in search of suitable accommodation or to long-term care because no alternatives exist in their neighbourhood.

Whether it is the redevelopment process (to replace tired retail strips with senior-friendly mid-rise condominiums) or municipal capital plans that institute changes to the public realm (such as better placement of bus stops, the addition of benches, improved signage or intersection design), these initiatives all take time and a concerted commitment to follow through.

### ***Recommendation***

- The Region and area municipalities should develop a strategy for retrofitting selected car-dependent neighbourhoods to encourage redevelopments that facilitate aging in place.

**Target housing developments to "empty nesters" and other older adults to encourage seniors to relocate within their existing neighbourhoods:** A key factor for older adults in making the decision to relocate within their existing neighbourhoods is the

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<sup>128</sup> See "Canada: A Suburban Nation and Its Changing Suburbs," 2013, David Gordon, MCIP, RPP, principal investigator, School of Urban and Regional Planning, Queen's University.  
[https://qshare.queensu.ca/Users01/gordond/Suburbs%202/canada\\_suburbs\\_change\\_overview.html](https://qshare.queensu.ca/Users01/gordond/Suburbs%202/canada_suburbs_change_overview.html)

ability to see and experience the product first. Important variables include the level of existing or anticipated amenities as well as the quality of the neighbourhood in terms of its walkability.

For older neighbourhoods developed with street grids and a defined shopping street, developers can use the area's existing amenities as a draw to justify the first senior-friendly building. This is often the starting point for establishing the critical mass that subsequently leads to further development, either one building at a time or through redevelopment of a large single site.

The same practice can also work in neighbourhoods without a history of mixed-use development. As in Port Credit and Don Mills, plans designed to accommodate change over a 10- to 15-year period can create desirable outcomes. To overcome the "chicken-and-egg" problem of whether retailing and other services can survive long enough for sufficient critical mass of customers to be established, municipalities and developers need to plan ahead and be prepared to partner with institutional investors that share their vision.

### ***Recommendations***

- The Region and area municipalities should encourage phasing plans and building designs that provide for incremental increases in density through the addition of different housing forms over time.
- In locations where market conditions cannot support retail or other amenities at the outset, developers should be encouraged to plan streetfront rental housing that can be later converted to retail or services.

**Capitalize on the Region's libraries to create a network of information hubs:** As the example of Manchester shows, the development of community libraries as "information hubs" offers many opportunities to focus transit and other services in ways that leverage the benefits of existing public investments. For older adults living in lower-density neighbourhoods where providing transit service affordably is a challenge, libraries offer an opportunity to focus services.

The City of Waterloo's three public libraries already offer dedicated programming for seniors, while Kitchener's five libraries provide bus route maps on their website. Cambridge has an additional six libraries, and together with ten libraries operated by the Region in four townships, there is rich potential to develop a "localized" Region-wide strategy that could complement the Region's plans to offer real-time travel information at bus stops. Adapting the physical layout of libraries so that they become attractive places to wait for transit would add value to such a strategy.

***Recommendations***

- Working collaboratively with municipal library boards and Grand River Transit, the Region should consider creating a neighbourhood-focused strategy to establish community libraries as information hubs (for transit education and route planning) and meeting points for age friendly mobility.
- In conjunction with Mobility Plus, the library system could be developed as a network of hubs from which seniors can be taken by shuttle bus to mainstream transit routes.

## **Appendix 1: Terms of Reference**

### **Supporting the Big Shift with Age Friendly Development Practices**

This assignment, to be completed by mid-September (assuming a start date in June), is to research and report on the potential for “Rapid Transit (RT) communities,” drawing on experience with similar communities elsewhere, to determine the impact of strategies promoting “aging in place.” A potential benefit is to identify the extent to which the terms “age-friendly” and “transit-friendly” are complementary or even synonymous.

#### **The role of transit – creating an RT community**

The Region of Waterloo is developing a strategy called “The Big Shift,” which seeks to change how people in the Region think about how their community is evolving, including the forthcoming rapid transit system. The strategy stems from recognition that for too long, the public – and key stakeholders in the planning and development process, such as developers, builders, real estate professionals, as well as municipal politicians and planners – have treated the issue as an “either-or” choice: a community must choose between supporting the car or promoting the use of transit; it cannot do both. The Big Shift proposes to soften the distinction between these two poles by acknowledging that change occurs incrementally, but also requires a shift in the culture of decision making and a better understanding of how development drivers interact with public policy and the marketplace.

To promote the required number of transit-friendly development projects needed for an RT community, it is necessary – and desirable – to change attitudes and perceptions with respect to the role of transit. Cars are – and will remain – critical to an urban way of life. But the degree to which communities can provide people with realistic alternatives to the car will depend on the evolution of a community’s urban structure and the housing types that get built. The challenge is to steer demand so that a significant proportion of housing choices support the desired shift. As documented extensively in many Region of Waterloo reports detailing the rationale for investing heavily in rapid transit, a successful outcome will have a significant impact on a community’s quality of life.

#### **Older adults need choices that allow them to age in place**

A potentially important variable in achieving a successful outcome is to tap into the profound demographic changes now under way. As the proportion of seniors increases over the next few decades, the decisions this demographic cohort makes with respect to the type of housing they occupy and where that housing is located will affect the physical and social make-up of individual communities.

A common assumption, reinforced by surveys carried out by CMHC, Statistics Canada, Public Health Agency of Canada and many others, is that most people want to “age in place.” The conventional interpretation of this concept is that about 85% of seniors who are in good health will stay in their houses for as long as they are able to sustain a reasonable quality of life (for reasons of health or economics).

This assumption should be treated with caution. Because the baby boom generation covers a 20-year spread (1946/7 to 1966), its members’ house-purchasing decisions are not homogeneous. Moreover,

the housing options available to baby boomers vary according to their age, since average dwelling size has tended to increase over time.

Today, more than 60% of seniors currently live in single-family dwellings (a Canada-wide average). A large proportion of these dwellings have been built since the Second World War in car-dependent subdivisions. There is thus growing concern about the feasibility of aging in place when that place is in a car-dependent suburb and elderly residents are no longer able to drive. Projections from the Ministry of Transportation for the Greater Toronto Area suggest that in 2036, more than 40% of seniors over the age of 75 (that is, baby boomers born in the 1950s or earlier) will no longer have a driving license. One explanation of the tendency to age in place is inertia; a second and more pressing one is that people naturally develop an attachment for the place they have lived in for much of their adult lives. In 2010, the provincial government announced the “Aging at Home” strategy, a program that funds a variety of initiatives coordinated and delivered through Local Health Integrated Networks (LHINs) that support aging in place. Although this policy likely reflects a desire to cap provincial spending on health care, it adds some urgency to the consideration of links between decreased mobility, isolation and health.

A third explanation for why seniors stay in their dwellings – and thus age in place – rather than relocate to housing that better meets their evolving needs is that there are typically few acceptable alternatives. Seniors are generally looking for affordability, care-free occupancy, safety and security, and access to amenities. Some may want a location that is well connected to public transit, although the propensity to use transit among seniors who have previously relied on driving for their mobility needs has historically been quite low.<sup>1</sup> Of course, the available data reflect the habits of a *previous* generation of seniors; the challenge is to anticipate what the current generation of seniors (beginning with the baby boomers) who have been exposed to different conditions during their formative years (when high levels of mobility are taken for granted) will want. It is also important to remember that if about 60% of seniors are in single-family dwellings, the other 40% are living in other types of accommodation.

The CUI and others, including senior staff at the Region of Waterloo, have recently begun to argue for a broader interpretation of aging in place that would expand the concept to “aging in place in one’s neighbourhood or community,” a definition consistent with a policy of creating more housing choices for seniors. Dr Gerald Hodge<sup>2</sup> suggests that, even though real estate brokers may believe that older adults are likely to move house, traditionally only a small proportion of older adults move from their homes in later life. Moreover, when people do move, they tend to stay in the same community, so that they can stay in touch with friends and family, and use familiar amenities. The ability – and feasibility – to age in place is therefore an important dimension of the push to build “age-friendly communities.”

<sup>1</sup> Transportation Research Board (multiple sources)

<sup>2</sup> “The Geography of Aging,” Gerald Hodge, McGill-Queens University Press, 2008



### **Aging in place requires that communities be age-friendly**

The term “Age-friendly Communities (or AFC)” was introduced on a pilot basis in Canada in 2007 by the World Health Organization. The concept is predicated on consideration of eight “domains”<sup>3</sup> that are said to determine whether a community can be considered to be “age-friendly.” The goal of AFC is to make the built environment more appropriate for older adults and to modify services to better meet their needs. Although the concept is becoming better known, the champions of age-friendly communities are typically agencies and municipal departments focused on the delivery of health and social services, NGOs and university researchers.<sup>4</sup>

As the Canadian Urban Institute pointed out in a paper for the Public Health Agency of Canada,<sup>5</sup> the concept has not yet been widely embraced by municipal planning departments. Part of the reason may be that only three of the eight domains address the built environment directly. Also, the AFC concept does not explain the practical differences between the planning and development of new outdoor spaces, buildings, transportation and housing and the day-to-day operational issues related to standards of service. An even greater challenge is the issue of scale: is it feasible for a community to be considered “age-friendly” across the entire municipal landscape or should the focus be on creating walkable neighbourhoods, transit-oriented corridors or even age-friendly individual streets?

Another challenge for municipal planning departments is the need to respond to yet another planning concept, in addition to Smart Growth, New Urbanism, Healthy Communities, and so forth. Public policy goals might have a better chance of success when complementary or compatible concepts or issues are dealt with in an integrated way.

With these considerations in mind, the goal of the proposed research assignment is to determine the extent to which the concepts of “aging in place,” “age-friendly communities” and “transit-friendly” or RT communities can be considered mutually supportive.

### **Key questions that need to be addressed**

The starting point for this assignment is to augment and enhance the Region’s Big Shift strategy. A number of inter-related questions can usefully be addressed by the research.

❑ How widespread is the practice of re-positioning a community as transit-friendly or as a Rapid Transit community? In such cases, what are the key strategies employed and what is the time frame for measuring progress?

❑ How have communities in North America and elsewhere interpreted the concept of aging in place? What is the experience of communities that have specifically set out to promote aging in place or to become age-friendly?

<sup>3</sup> These are “Outdoor spaces and buildings, Transportation, Housing, Social participation, Respect and social inclusion, Civic participation and employment, Community and health services, and Communication and information.”

<sup>4</sup> <http://afc.uwaterloo.ca> is a website managed by a consortium of health and social agencies and the University of Waterloo.

<sup>5</sup> “Re-Positioning Age-friendly Communities: Taking AFC Mainstream,” Canadian Urban Institute, 2011.

☐ Have other communities specifically linked the goal of becoming transit-friendly or Rapid Transit communities with aging in place or becoming age-friendly? What has been the experience/outcome of a selection of comparable Rapid Transit communities in attracting seniors along its corridors?

☐ Are popular assumptions about aging in place reliable? Is there evidence that older adults who do decide to relocate make “smart” decisions or do they move into similar or even larger forms of housing? Can past behaviours be counted on to forecast future conditions?

☐ What housing options were available to the baby boom cohort at the time of their initial decisions to enter the homeownership market? Is the Region of Waterloo experience comparable to say, that of the City of Ottawa or the City of Mississauga? Where do seniors not living in single-family dwellings reside and is their tenure in such locations long-term?

☐ What are the key factors driving the decisions of older adults to relocate into apartments, condominiums or other forms of housing that are consistent with higher transit use?

☐ How important are affordability, age-appropriate design, access to amenities, and access to rapid transit in seniors’ decisions to relocate from their current housing?

☐ Are seniors being “pushed” to move (for example, because their current housing is too large and unmanageable, or because an older occupants has lost a spouse or experienced health problems)? Or are they being “pulled” into new forms of housing (because there are attractive alternative housing choices within their existing neighbourhoods or community)?

☐ What are the driving forces for creating a successful RT community, and what role can aging in place or promoting age-friendly communities play? To what extent can the introduction of rapid transit into a community be considered as a change agent in urban attitudes and behaviours?

#### **Turning these questions into a feasible study**

On one level the proposed research will be shaped as a survey of best practices or even failed practices. The challenge will be to narrow and refine the long list of questions to be addressed in such a way that evidence can be found to substantiate or create suitable proxies.

#### **The CUI is committed to providing the Region with research that can support advancement of the Big Shift**

In addition to the CUI’s full time research staff (myself, Katherine Morton and Christine Joy Carr), we will be working with Senior Associate Philippa Campsie. As you may recall, Philippa was deputy editor of the Ontario Planning Journal during my tenure as editor and we have worked extensively together on a variety of projects for CUI. In addition to being an expert in plain language communications, Philippa teaches in the University of Toronto’s planning program.

We will also have access to the advice and input of other colleagues with specific expertise in all of the issues discussed in this proposal. Gordon Harris, FCIP is President & CEO of Simon Fraser University Trust (developer of Univercity, the sustainable community on Burnaby Mountain). Gordon and I have co-authored a number of articles and presentations related to transit-supportive development and aging.

He is a member of the National Capital Commission's advisory committee on planning design and realty and is involved with the Prince's Foundation for Building Community.

The reach of our network in terms of identifying best (and failed) practices as discussed in this proposal is extensive.

Sincerely,

Glenn Miller, FCIP, RPP

Vice President, Education and Research (Acting President & CEO)

c.c.

Philippa Campsie

Gordon Harris

Friday, April 23, 2013