HOUSING FOR OLDER CANADIANS:

The Definitive Guide to the Over-55 Market

Designing the Project

Canada

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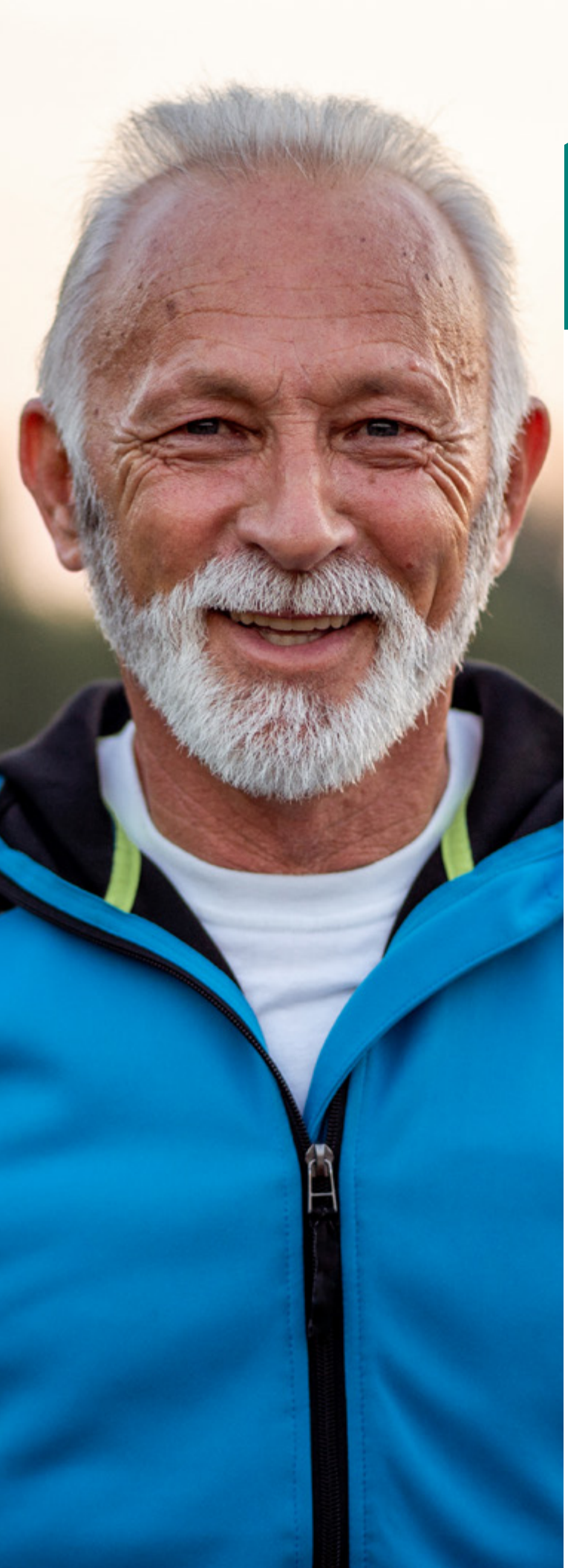

Introduction

"Housing for Older Canadians: The Definitive Guide to the Over-55 Market – Designing the Project" provides readers with an overview of best practices and innovative approaches to the design and delivery of housing for older Canadians from across Canada. This two-part series aims to inform a variety of audiences, ranging from private and non-profit developers to planners, designers, service agencies and municipal policy specialists as well as provincial or territorial staff focused on coordinating initiatives to promote healthy communities.

This guide includes an overview of recent trends in city building across Canada as they affect the design and delivery of housing projects targeted to Canadians aged 55 years and older. The publication looks at the design of housing for seniors from both the neighbourhood and project scale; describes a variety of concepts and public policy initiatives; and discusses key trends such as sustainable design, alternative forms of tenure and adaptable housing models. Case study examples are included to illustrate the concepts throughout the report.

"Housing for Older Canadians: The Definitive Guide to the Over-55 Market – Understanding the Market," explains that the demand for different types of housing suitable for older adults is changing rapidly. Within the next 25 years (2041):

- Canada's population is expected to increase from 35 million in 2016 to more than 44 million;
- older adults aged 55 and over will comprise a significant percentage of this total, growing from 11 million today to about 16 million; and
- approximately 25% of all Canadians will be 65 years old—eligible for Old Age Security (OAS) and the Canada Pension Plan (CPP).

This Guide aims to clarify what these demographic trends mean for private and non-profit developers interested in building housing for older Canadians. To better understand the broader built environment context, the first section focuses on policies and approaches to planning at the neighbourhood scale—the ever-changing process of city building. This will be of interest to municipal planners and their provincial or territorial colleagues that are responsible for developing public policy aimed at creating a healthy, age-friendly built environment.

1 Preparing the Neighbourhood for Age-Friendly Housing Projects

Planners in the public, non-profit and private sectors are interested in effective new models to achieve what the profession sees as "good planning." What does this mean for those interested in creating a more effective planning policy or developing innovative housing projects designed for older Canadians? There have been many improvements to the practice of city building over the past 70 years, but it can sometimes take many decades for good ideas to take hold. How we meet the needs of seniors is a case in point.

In post-war Canada, the emphasis was on expanding beyond the urban footprint of traditional central city neighbourhoods to accommodate the unprecedented demand for affordable family housing. Unsurprisingly, the emphasis in the 1950s and 1960s was on perfecting a process of orderly development that met basic requirements for road access and the provision of essential municipal services such as water, storm and sanitary sewers. The late 1970s saw a transition toward accommodating environmental concerns and a sense of alarm that new growth often required access to a car for families to get to work, shop or go to school. Development densities were generally too low to justify the provision of public transit.

The 1980s saw a flurry of exciting new approaches to city building. One of the most successful was Smart Growth, an idea originally conceived as a tool to help planners manage urban growth at the regional scale. The concept was sufficiently robust, that planners were applying Smart Growth principles to guide neighbourhood design. Smart Growth resonated with the general public, and developers began positioning individual buildings as "smart growth" projects.

One of the first initiatives to focus on the conflict between how neighbourhoods were laid out and the needs of aging residents—anticipating the impact of demographic change that is now a reality—was a 1983 Ontario Ministry of Municipal Affairs and Housing research publication. The report[1] identified five areas where urban planners needed to change how new neighbourhoods were designed and managed if aging baby boomers were to thrive in a built environment designed for the car:

- **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."
- **The demand for transportation throughout the community:** The report highlighted key areas of mobility need—the means to get to work and access services; special services for the disabled; a barrier-free walking or cycling environment; public transit to facilitate easy access to dispersed origins and destinations; and reasonable fares on transit.
- **The ways health and social services are delivered at the local level:** The report foresaw today's increased demand for home-based service delivery.
- **The demand for a greater range of housing types in neighbourhoods:** Focusing on the desire of older adults to remain independent for as long as possible, the report noted 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.
- **The value of "densification," mixed use, and the creation of neighbourhood centres:** The report foresaw the impact of aging on health care costs, set out the groundwork for accommodating the needs of people with disabilities; and accurately forecast the current dilemma facing single women identified in the 2016 Census, noting 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."

Although the report was well received, its impact was minimal at a time when seniors represented only about 10% of the population; it would be another 25 years before policy makers returned to the challenge of improving the quality of the built environment for older adults. In the intervening period, a number of exciting new models for neighbourhood design came to the fore. These included New Urbanism and LEED-ND[2], both of which offered a prescriptive approach to the physical design of neighbourhoods. These models, which relied on design guidelines enshrined in zoning codes to promote compact urban form, mixed use and walkability, did not specifically address the needs of seniors.

Two complementary initiatives aimed at making those connections were introduced in 2007 and 2008. In 2007, the World Health Organization's Age-Friendly Cities (AFC) Framework was introduced in Canada as a pilot program with the aim of promoting healthy aging at the community scale. The origins of this work had begun decades earlier when public health researchers identified a need to provide appropriate care for a generation of older adults living long enough to suffer from chronic diseases like heart disease, cancer, diabetes and dementia. A 2006 landmark report from the Public Health Agency of Canada (PHAC) entitled, "Healthy Aging in Canada," provided one of the first comprehensive visions for healthy aging. The report acknowledged the role of a well-designed built environment in mitigating the impact of chronic diseases and disabilities. The PHAC report was the first to use the term "age friendly" and its principal author, Louise Plouffe, was later seconded to the World Health Organization, a step that led to the 2007 publication of "Global Age-Friendly Cities: A Guide," the culmination of engagement with seniors in 30 cities around the world (including four in Canada).

[1] Ontario Ministry of Municipal Affairs and Housing, Towards Community Planning for an Aging Society (Toronto: Queen's Printer, 1983)
[2] See www.newurbanism.org/ and https://www.usgbc.org/articles/getting-know-leed-neighborhood-development

The guide described the age-friendly city as one that "encourages active ageing by optimizing opportunities for health, participation and security that enhance quality of life as people age. In practical terms, an age-friendly city adapts its structures and services to be accessible to and inclusive of older people with varying needs and capacities."[3] The guide also provided a rudimentary policy framework that cities could use to develop local responses in the form of age-friendly checklists on eight topics "covering features of the city's structures, environment, services and policies that reflect the determinants of active aging."[4]

Since 2007, the Age-Friendly Cities (AFC) concept has been widely adopted in cities and smaller communities across the country. The framework focuses on eight priority domains or subject areas, three of which specifically deal with aspects of the built environment: transportation, housing and outdoor spaces and buildings. The AFC concept has proved to be an effective tool for engaging with senior citizens but—to date—has been less successful in influencing changes to the built environment. In 2017, however, the Ontario government took an important step towards linking AFC with land use change by identifying age-friendly policies as a priority in its revised Growth Plan for the Greater Golden Horseshoe. The City of Toronto was the first large Ontario city to commit to modifying its official plan to reflect this new direction.

In 2008, a year after the launch of the World Health Organization's Age-Friendly Cities program, CMHC released a report summarizing research aimed at guiding neighbourhood design for the benefit of older adults.[5] The CMHC publication identified six areas for urban designers and planners to focus on, but also included detailed criteria intended to inform municipal evaluations of existing neighbourhoods:

NEIGHBOURHOOD WALKABILITY

- Proportion of housing within walking distance (500 m/1,640 ft.) of public transportation.
- Average distance between pedestrian resting places (for example, benches) along sidewalks.
- Proportion of streets, by distance, categorized as streets with sidewalks on both sides, sidewalk on one side and no sidewalk.
- Proportion of sidewalks (by distance) in good repair—that is, not badly cracked or broken pavement.
- Average number of walk trips per day, per week, per month by residents aged 65 years or older (local government should categorize by destination, season, length, time of walk).
- Annual number of pedestrian injuries and fatalities from accidents with automobiles, categorized by victim age, season and reason for accident.
- Proportion of sidewalks cleared during or after a snowfall or freezing rain event.

TRANSPORTATION OPTIONS

- Proportion of residents aged 65 years or older who travel every day, once a week, once a month, or never, categorized by mode of transportation, destination and season.
- Average number of trips taken on public transportation every day, once a week, once a month by residents aged 65 years or older.
- Average number of times a week that residents aged 65 years or older report staying at home because of lack of transportation.

SAFETY

- Proportion of residents aged 65 years or older who report feeling safe or unsafe in their neighbourhood, categorized by time of day, location, and reason(s) for feeling unsafe.
- Proportions of streets, pedestrian routes (by distance), bus stops, public places and retail areas that lack adequate lighting for walking at night.
- Annual number of "slip and fall injuries" on sidewalks and in public spaces, categorized by season, type of injury and place of fall.
- Number of reported street crimes against residents aged 65 years or older, categorized by type of crime, location of crime and time of day.
- 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

- Proportion and number of residences in the community categorized by housing type: multi-family, single-family, duplex, townhouse, rowhouse, mobile home, FlexHousing™, garden (granny) suites, accessory dwelling units and other (could be further categorized by new versus existing housing stock).

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[3] World Health Organization. Global Age-friendly Cities: A Guide. Geneva: World Health Organization, 2007. http://www.who.int/iris/handle/10665/43755

[4] The evolution of age-friendly cities is described in detail in "No Place to Grow Old: How Canadian Suburbs Can Become Age-Friendly," Institute for Research on Public Policy, 2007

[5] *Community Indicators for an Aging Population*, CMHC Research Highlight, Socio-economic Series 08-014, July 2008.

- Occupancy rates at existing lifestyle retirement housing, seniors' residences and supportive housing.
- 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.
- Proportion of residents aged 65 years or older who spend 30% or more of their before-tax household income on housing.
- Proportion of residents aged 65 years or older living in housing with unmet home modification needs (such as narrow hallways, unsafe stairs, lack of bathroom grab bars, inadequate lighting).
- Proportion of households living in "acceptable" housing (meeting adequacy, suitability and affordability standards) in the community, categorized by age cohort.

ACCESS TO SERVICES

- Proportion of housing within walking distance (500 m/1,640 ft.) of the following basic services: pharmacy, grocery store and bank.
- Proportion of housing within walking distance (500 m/1,640 ft.) 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.
- Proportion of residents aged 65 years 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 centres.
- Proportion of residents aged 65 years or older who have access to home delivery of groceries and other retail goods.

COMMUNITY ENGAGEMENT IN CIVIC ACTIVITIES

- Proportion of residents aged 65 years 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.
- Proportion of residents aged 65 years or older who are able to access a dedicated senior centre or other place of interest, such as a library or community centre.
- Local government has land-use policy and planning programs that specifically engage seniors.

The CMHC report concluded that "Most Canadian communities have made minimal progress in achieving smart growth and livability goals to date, and are thus ill-prepared to accommodate the housing and mobility needs of an aging population." Like the World Health Organization's Age-Friendly Communities Framework, the CMHC report presented a holistic view of the conditions affecting the well-being of older adults but provided planners with spatially relevant criteria that could be directed to the design of new neighbourhoods and redevelopment of existing neighbourhoods. The impact of the CMHC research can be seen in more recent approaches to city building such as Healthy Communities and Complete Communities[6] that are currently influencing municipal and provincial or territorial approaches to land use planning.

Another standout planning model specifically developed to facilitate redevelopment of existing neighbourhoods is the Healthy Development Index (HDI), which can trace its approach back to Smart Growth and many of the other influences on neighbourhood design discussed in this section.

The HDI originated in the late 2000s in the Region of Peel, a car-dependent community west of Toronto, as a tool for planners in the three local municipalities (Mississauga, Brampton and Caledon) to assess the impact of new development proposals in the Region.

Noting the prevalence of type 2 diabetes in the local population (one in ten residents), Peel's medical officer of health forecast that this could increase to one in six by 2025.[7] Significantly, he drew a direct line between lifestyle, diet and car-oriented neighbourhood design that discouraged physical exercise. Working with planning consultants and McMaster University, Peel pushed for 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),[8]

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[6] A "complete community" is defined as a community that "meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, a full range of housing and community infrastructure including affordable housing, schools, recreation and open space for their residents. Convenient access to public transportation and options for safe, non-motorized travel is also provided". Source: http://www.placestogrow.ca

[7] 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

[8] 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

and building on work carried out under the banner of Healthy Canada by Design,[9] Peel's Healthy Development Index established a development review process that covered the following:

- Density (and built form)
- Proximity to services and transit
- Land use mix
- Street connectivity
- Road network and sidewalk characteristics
- Parking
- Issues related to esthetics and human scale[10]

Although the plight of seniors was not the primary focus, the Peel approach can benefit any jurisdiction striving to address age-friendliness, transit-friendliness, and healthy community development at the same time:

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 (walking, cycling, public transit).[11]

The value of the HDI is that it has been explicitly designed to be compatible with local planning processes. The model will prove useful for municipalities wishing to take on the long-term task of providing guidance for developers and their consultants interested in meeting the needs of older Canadians. By adjusting and adapting the way that development applications are reviewed, municipal planning departments and stand-alone agencies, such as public health and social services, can work to integrate age-friendly development with broader goals of energy efficiency and active transportation.

CASE STUDY:

Beacon Hill Village, Boston, Massachusetts, United States

Beacon Hill Village is a member-driven, non-profit organization for residents 50 years and older from the Boston neighbourhoods of Back Bay, Beacon Hill, Downtown/Waterfront, Fenway/Kenmore, Midtown, and the North, South, and West Ends of Boston. The organization provides programs and services so members can age in their own homes and neighbourhoods.

Members pay $675 (U.S.) per year ($975 [U.S.] for a couple) to have access to seven staff members who help them get the services they need, including finding handymen, help getting groceries, rides from appointments and health care providers. There are also social activities, such as weekly coffee conversations and monthly lectures, which help members avoid social isolation.

As many of the members have incomes below the median income, there are discounted membership fees of $125 (U.S.) for one person or $175 (U.S.) for a couple, which are offered to about a fifth of Village members. Membership fees do not cover all of the costs so fundraising is an important component of the model.

The Boston "virtual village" is credited with launching a network of similar enterprises in neighbourhoods across the U.S. A key feature of the concept is the ability of individuals to tap into local physical assets (such as main street shopping) and leverage access to amenities and services through online connections to volunteers. This is an important concept for provincial or territorial and municipal policy makers in Canada because it highlights the opportunity to leverage community assets as a way to stretch tax dollars by avoiding or at least mitigating the need to develop publicly funded programs to support aging in place. For private and non-profit developers, the concept suggests ways to create niche market opportunities to complement existing housing options.

[9] See https://hcbdclasp.blog

[10] James Dunn et al., Peel Healthy Development Index, December 2009, http://www.peelregion.ca/health/urban/pdf/HDI-report.pdf

[11] Ibid., page 3

CASE STUDY:

Hogeweyk, Weesp, Netherlands

Hogeweyk is a master-planned village completed in 2009 that is home to 152 people living with severe dementia. The community has 23 living units, each shared by six to eight residents. Care is provided 24-7 by 240 "villagers" who are trained geriatric nurses and caregivers dressed in street clothes. The staff take charge of preparing meals, planning activities, providing personal care and administering medications.

Hogeweyk was designed as a full village with a theatre, restaurant, café, community centre, supermarket, hardware store, hair salon, meeting rooms and an outpatient care unit. The complex was designed so that residents could move about freely, while still remaining within a protected environment. The outdoor spaces have been designed specifically to enhance the well-being of residents, including the green areas, the outdoor patient facility, and a centre for physical therapy. This design encourages residents to remain active and gives them a sense of purpose while still ensuring their safety.

The complex is divided into different lifestyles based on the lifestyles of residents. These lifestyles are artisan, Christian, cultural, Gooise, homey, Indonesian, and urban. The goal of this design is to provide a normal life based on the lifestyle of the people living together in one house. Spouses or partners not afflicted with dementia are able to visit and spend time with their loved ones, which helps mitigate the trauma of separation.

The cost to build the village was slightly over $25 million, $22 million of which was funded by the Dutch government. Residents pay approximately $7,000 monthly.

While designing an entire village from scratch may not always be feasible, this project underscores the importance of community planning policies that encourage a mix of housing options, walkability, a mix of services and amenities within residential areas, and easy access to green space. This also highlights opportunities for private and non-profit developers to incorporate a mix of housing options as well as services and amenities within their large-scale residential projects or to find locations that are easily accessible to services and amenities.

2 Designing for People of All Ages

There is ample evidence showing that as people age, many want to continue to live in the same home or the same neighbourhood or community they have lived in for years.[12] This is especially true for older adults who cannot afford to move into a retirement home, and for whom aging at home or aging in place is the only viable solution. When developing new housing, conscious efforts must be made to introduce design features at the outset that avoid the need to relocate or undertake costly retrofits. This opens up the potential for utilizing in-home care services in the event that additional supports are required later in life.

"Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. An environment (or any building, product, or service in that environment) should be designed to meet the needs of all people who wish to use it. This is not a special requirement for the benefit of only a minority of the population. It is a fundamental condition of good design. If an environment is accessible, usable, convenient and a pleasure to use, everyone benefits. By considering the diverse needs and abilities of all throughout the design process, universal design creates products, services and environments that meet peoples' needs. Simply put, universal design is good design."[13]

[12] This is taken from Statistics Canada at https://www150.statcan.gc.ca/n1/pub/75-006-x/2014001/article/14042-eng.htm#n1-refa

[13] This definition is taken from the Centre for Excellent in Universal Design website at: http://universaldesign.ie/What-is-Universal-Design

Universal design principles, outlined below, have been successfully applied to the design of products, communications, built spaces, transportation, and many other areas:

1. **Equitable use:** the design is accessible and appealing to all users; if possible, one design should serve all users comfortably and safely, but if not, accessible alternatives should be available to those who cannot use the mainstream design.
2. **Flexibility in use:** users have choices in manipulating an object or navigating a space; the design can be used in a variety of ways by people of different ages, abilities, and preferences.
3. **Simple and intuitive:** users can immediately see how to use an object or navigate a space, and they receive feedback on their progress.
4. **Perceptible information:** the design is clear and legible to all users, regardless of their level of ability, including differences in vision, hearing and mobility.
5. **Tolerance for error:** the design minimizes the potential for errors and dangers; if the user misuses an object or navigates the wrong way in a space, the effects are not harmful and mistakes are reversible.
6. **Low physical effort:** the design of objects and spaces does not require the user to exert great physical effort or to adopt an uncomfortable body position, nor to engage in tiring and repetitive physical tasks.
7. **Size and space for approach and use:** all users can reach and manipulate objects and navigate spaces comfortably.

New housing units that employ universal design allow people from diverse backgrounds and income levels to stay in their homes while limiting the amount spent on making their homes accessible in later years. Features that make a home more accessible are "less expensive if incorporated during initial construction."[14]

IF AN ENVIRONMENT IS ACCESSIBLE, USABLE, CONVENIENT AND A PLEASURE TO USE, EVERYONE BENEFITS.

[14] This information is taken from CMHC found at https://www.cmhc-schl.gc.ca/en/developing-and-renovating/accessible-adaptable-housing/universal-design-adaptable-housing-models

CMHC has noted the following ways to "ensure current and future accessibility for residents."[15]

Throughout the home	• Allow space for wheelchairs and walkers to move freely. • Install lever-style door handles and faucets. • Use non-slip flooring.	• Install smooth, low thresholds. • Include good, non-glare lighting. • Install windows with low sills. • Insulate exposed pipes.
Entryway	• Position the entry near parking. • Use ramps and landings, or well-designed steps.	• Install a bench or ledge to set things down while opening the door. • Add a covered sitting porch, canopy or overhang.
Living room and dining room	• Design the space for a range of activities, such as watching television, reading, entertaining, playing table games and dining.	• Allow for flexible furniture layouts. • Make the most of natural light and outdoor views.
Kitchen	• Install removable lower cupboards. • Use adjustable-height counters with rounded corners. • Place cabinets, appliances, switches and outlets within easy reach.	• Create adjustable storage and place short-term storage between knee and shoulder heights. • Use colour contrast on outlets, cabinets and counters. • Install hands-free faucets.
Bedrooms	• Design the space for varied uses, such as crafts, hobbies and reading. • Provide bedside storage.	• Place controls for lights, television and telephone within reach of the bed.
Bathrooms	• Locate the full bathroom on the ground floor. • Install an adjustable-height vanity and removable lower cabinets. • Use a step-in tub with a seat and a roll-in shower with an adjustable-height showerhead.	• Install temperature-limiting controls and make them accessible from both inside and outside the tub and shower. • Reinforce walls to support grab bars. • Add a closet or cabinets that can be used later to expand the room.
Storage spaces	• Leave space to store wheelchairs, walkers and electric scooters. • Provide a place to recharge scooter batteries. • Avoid high or very low shelving. • Ensure any storage area outside of the unit is lockable.	• Install temperature-limiting controls and make them accessible from both inside and outside the tub and shower. • Reinforce walls to support grab bars. • Add a closet or cabinets that can be used later to expand the room
Laundry room	• Locate laundry areas on the same floor as the living area.	• Put switches and plugs within easy reach. • Install front-loading machines.
Patio and balcony	• Ensure a wheelchair can fit through the doorway. • Plan for a minimum depth of 1.8 m (6 ft.). • Add lighting and an electrical outlet.	• Use a railing that doesn't block the view while seated. • Ensure doors are secure.

[15] This information is taken from CMHC found at https://www.cmhc-schl.gc.ca/en/developing-and-renovating/accessible-adaptable-housing/universal-design-in-new-housing

CASE STUDY:

Bridgwater Project, Winnipeg, Manitoba, Canada

Bridgwater is a housing development project initiated by the Manitoba Housing and Renewal Corporation in 2006 and is expected to be completed by 2021. It is one of the first neighbourhood plans in Canada that includes a large proportion of homes to be built as visitable homes. The vision for the development is a walkable neighbourhood with a diversity of housing suitable for people of all ages.

The project includes four neighbourhoods: Bridgwater Forest, Bridgwater Lakes, Bridgwater Trails, and Bridgwater Centre with a mix of townhouses, multi-family homes, and single-family homes. Approximately 1,000 homes will be visitable.

The basic features of the visitable homes are that they provide easy access on the main level for everyone, regardless of physical abilities. They have a no-step entrance, wider doorways and clear passage, and a main floor bathroom that can be used by someone with a mobility device. The lots were also pre-engineered to accommodate the no-step entrance and drain to a pathway at the rear yard.

This case study illustrates to private and non-profit developers the value of incorporating visitable and accessible elements from the design stages of a project. It also shows opportunities to create visitable neighbourhoods that are walkable and have a mix of housing options for different types of households and ages.

CASE STUDY:

Daniels Corporation Accessibility Designed Program (ADP), Ontario, Canada

Daniels launched its Accessibility Designed Program in late 2017 at the Wesley in Mississauga, at the DuEast in Regent Park, Toronto and all its future projects. Suites offered through this program exceed the accessibility standards set by the Ontario Building Code and follow the principles of universal design. Daniels offers standard layouts that include accessible features such as:

- roll-in shower
- roll-out balcony with swing door
- power-operated entry door rough-in
- handheld shower faucet
- grab bars in the shower
- under-sink knee clearance
- wider doors throughout
- additional clearance in the washroom

These accessible features are provided at no extra cost if the purchaser opts for an ADP suite. In addition, the purchaser can work with Daniels to further upgrade their suite to meet their specific accessibility needs. While this option is currently only available at two of Daniels' projects, the goal is to have this in all Daniels' high-rise buildings.

This case study demonstrates the ability of a private developer to include accessibility features as a standard option while keeping the project financially feasible. It also highlights an opportunity for provincial or territorial and municipal policy makers to encourage or require private and non-profit developers to include accessibility features that exceed Building Code requirements.

CASE STUDY:

Lifelong Housing Certification Program, Oregon, United States

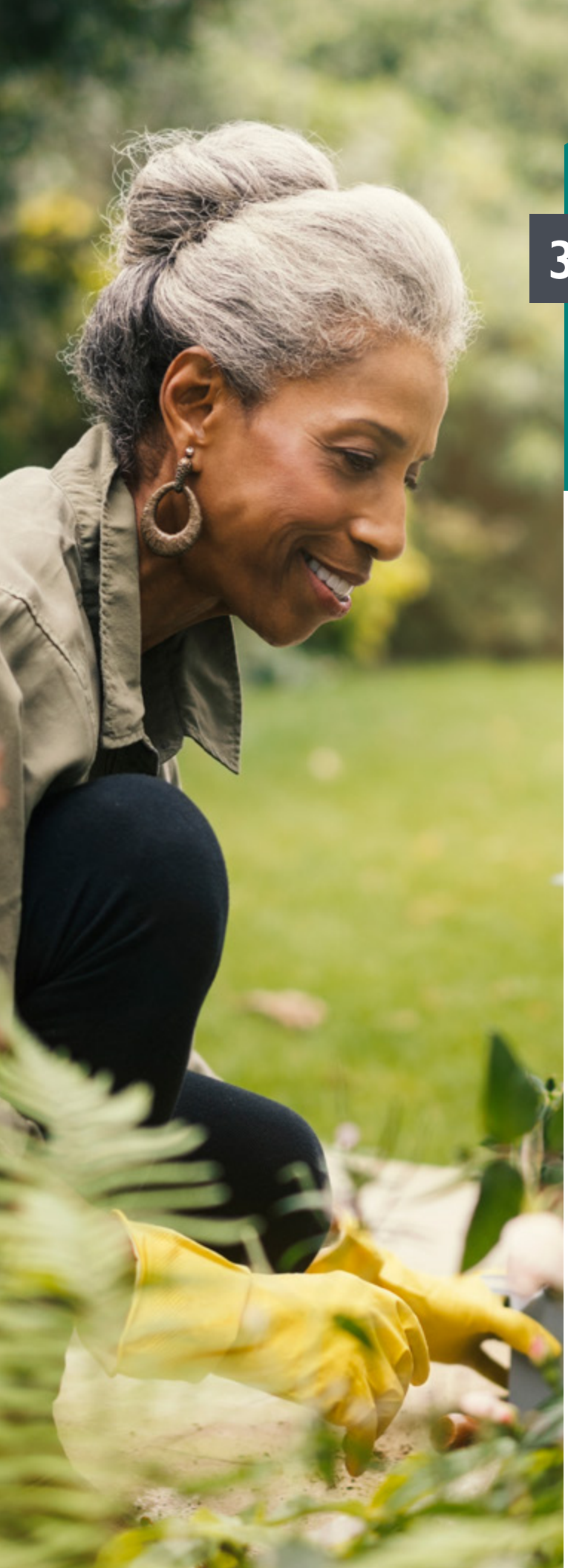
This is a voluntary evaluation program developed by the Rouge Valley Council of Governments and AARP Oregon. The program assesses the age-friendliness and accessibility of newly constructed as well as existing homes. It includes a comprehensive checklist of features and defines levels of certification based on universal design standards. The goal of the program is to help the marketplace respond to a growing demand for accessible and adaptable homes that promote aging in place safely and independently. It also makes it easier for people of all ages to find homes that are suitable for lifelong living.

The different certification levels are as follows:

- **Level 1: Visitable –** The home contains the mandatory features that are needed for visitability.
- **Level 2: Fully accessible –** The home is fully accessible and includes a variety of mandatory and optional features that make the central living area suitable for lifelong living. It also ensures that a person using a mobility device can perform all personal and housekeeping functions.
- **Level 3: Enhanced accessibility –** These homes have all the features of the previous two levels as well as further enhancements for personalized accessibility, which may include smart technologies or features.

In Ontario and other provinces, occupational therapists work with a variety of design consultants and other health care specialists to adapt existing housing units to the specific needs of older adults. This can be done proactively in anticipation of "future proofing" apartments or houses or retroactively, to facilitate the potential for a patient to return to their home after a stay in hospital. The scope of the practice of occupational therapists includes working with others to address physical issues, such as mitigating the potential for falls and addressing cognitive and emotional challenges.

Another organization that plays an increasingly significant role in helping seniors adapt their existing housing to enable them to age at home is the Canadian Home Builders Association (CHBA). The CHBA established the Home Modification Council with the goal of establishing best practices within the renovation industry. Their members undergo training in achieving a better understanding of building codes, the potential for new technology, government grants and programs as well as the realities of rules and regulations set out by the Canada Revenue Agency with respect to income tax law.



3 Meeting the Demand for Sustainable Solutions

What do we mean when we talk about sustainable solutions in housing? The word "sustainable" has been used in conjunction with everything from housing, transportation, energy, to agriculture. Although the term is sometimes overused, there is general agreement that we share a need to find and implement real world solutions to limit the impact we have on the environment.

According to a report by the Institute for Research on Public Policy (IRPP), "there is a growing realization that urban growth patterns are economically, environmentally and practically unsustainable." This suggests a need for local governments, housing developers and the community to think differently by utilizing innovative approaches to housing.[16]

In general, sustainable solutions in housing refer to environmentally beneficial elements in the design and construction of housing, such as the use of environmentally sensitive materials, energy-efficient mechanical systems, and energy-efficient overall project design. There is a focus on making a conscious effort to reduce the environmental impact on future generations when developing housing. The aim of creating a sustainable housing unit is to use less energy, less water, produce less waste materials, and pay attention to solar power, insulation and airtightness.

[16] Glenn Miller, No Place to Grow Old: How Canadian Suburbs Can Become Age-Friendly, 2017, http://irpp.org/wp-content/uploads/2017/02/insight-no14.pdf

A key goal for companies and non-profit organizations interested in developing sustainable housing is to reduce future operating costs, such as household maintenance, energy and other utilities. This has practical benefits for older adults concerned with mitigating the impact of rising housing costs when incomes may have stabilized or declined.

PASSIVE DESIGN

An example of a housing design that has incorporated sustainable solutions is the Passive House. This is an idea that emerged in Germany and is being increasingly used as a sustainable solution in Canada. Housing that is developed with passive design in mind will lead to lower utility bills and lower energy use. Alternative methods of heating and cooling dwellings are employed, while the need for traditionally expensive heating and cooling systems is eliminated. Attention is paid to creating an airtight design and increased insulation to eliminate thermal bridges (which is responsible for heat loss).

Passive house design that incorporates the elements of sustainability is being considered across the world. According to CMHC, passive design refers to "technologies and construction methods that increase a building's energy efficiency and reduce its operating costs without using complex systems."[17]

Passive design has a number of benefits, which include:

- greatly reduced energy consumption and cost for residents and landlords
- the avoidance of rate subsidies
- lower bad-debt write-offs
- reduced carrying costs for arrears
- fewer notices and customer calls
- fewer shut-offs and reconnections due to delinquencies
- An increase in overall property values.[18]

PASSIVE HOUSE DESIGN THAT INCORPORATES THE ELEMENTS OF SUSTAINABILITY IS BEING CONSIDERED ACROSS THE WORLD.

SUSTAINABLE COMMUNITY DESIGN (SCD)

Like passive design, sustainable community design focuses not only on sustainable housing solutions, but on the community at large. Sustainable community design looks to create walkable communities with an emphasis on more green spaces, accessible transportation and affordable housing, all while having the lowest ecological impact and energy consumption possible.

An example of a Canadian city that has applied sustainable solutions to building housing units is Dieppe, New Brunswick. In collaboration with the Province of New Brunswick and a private builder, the City of Dieppe implemented the sustainable community design (SCD) concept, which protects environmentally sensitive areas and provides affordable housing in the subdivision.

Initially, the sustainable community design was implemented by the City to tackle greenhouse gases. This step led to having positive effects for affordable housing by helping to reduce the costs of developing and maintaining new housing units.[19]

[17] This is taken from the CMHC website at https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/archive/publications/canadian_housing_observer/observer-compilation-2017-en.pdf

[18] This is taken from the CMHC website at https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/archive/publications/canadian_housing_observer/observer-compilation-2017-en.pdf

[19] This is taken from a report by SHS Consulting available at http://www.peelregion.ca/planning/officialplan/pdfs/2018/2018-housing-strategy.pdf

CASE STUDY:

Hillcrest Senior Residences, Pittsburgh, Pennsylvania, United States

Hillcrest Residences has a total of 66 mixed-income housing units for seniors. Of these 66 units, 6 units are for senior households earning 20% of the area median income (AMI), 34 units for those earning 50% AMI, 16 units for seniors earning 60% AMI, and 10 units at unrestricted rents. Ten of the units receive project-based vouchers from the Housing Authority of the City of Pittsburgh and eight units are fully accessible.

The project has received the Passive House certification from the Passive Housing Institute of the United States, making it one of the largest certified buildings in the United States. The building has Energy Star® appliances, a highly and continuously insulated interior, high-performance doors, and triple-paned windows. According to the architect, passive house developments consume about 86% less energy for heating and 46% less energy for cooling when compared to typical developments that meet the building code.

In addition to the housing units, the project has a community room with a library, community garden, business centre, fitness room, outdoor terrace, laundry rooms, and a private room for health services. The developer (The Community Builders) partnered with the University of Pittsburgh's School of Nursing to provide residents with quarterly health screenings, monthly healthy eating tips and exercise, and fall prevention workshops. Additional social services are provided through partnerships with the American Health Care Group, Greater Pittsburgh Community Food Bank, and the University of Pittsburgh's Medical Center Stroke Institute.

This case study provides an example of a project that combines environmental sustainability with housing affordability as well as elements to facilitate aging in place. In addition to having elements that support energy efficiency and climate change adaptation, this project includes elements, such as accessible design and support services, which will allow seniors to live independently in their homes even as their health care needs change.

CASE STUDY:

Elm Place, Vermont, United States

Elm Place has 30 affordable, one-bedroom units for seniors. It also has a community room with a kitchen, lounge, laundry facilities, exercise room, activity room, parking, garden beds for the residents' use, on-site storage, and an outdoor courtyard. Two units are fully accessible and all units are adaptable. The project was certified as a Passive House in July 2017 by the Passive House Institute US.

Rents for the units include all utilities except for telephone, cable and Internet service. Elm Place also offers Support and Services at Home (SASH), a wellness and care-coordination program, which helps residents access the care they need to stay healthy while living safely and comfortably at home. Residents benefit from an on-site SASH coordinator and part-time wellness nurse at no extra cost.

The development costs were funded through various sources including the Vermont Housing Finance Agency, People's United Bank, Vermont Community Development Program, Vermont Housing and Conservation Board, and the Town.

This project demonstrates how private and non-profit developers can incorporate elements that support environmental sustainability, housing affordability, and aging in place into the design of a housing project.

CASE STUDY:

Morningside Crossing, Pittsburgh, Pennsylvania, United States

Morningside Crossing is a 46-unit affordable seniors' housing project with a mix of one- and two-bedroom affordable and market rate units. The project combines a Passive House retrofit of an existing elementary school, which was built in 1897 and closed in 2006, and a new Passive House addition that is located over on-site parking. The project also includes a neighbourhood centre, a public plaza, and landscape features that will capture all storm water on site. The neighbourhood centre's community room and fitness room will be accessible to both the residents and the community to encourage inter-generational activities.

Many Morningside neighbourhood residents are now seniors looking for an opportunity to downsize while still staying in their community, which also frees up houses in the neighbourhood for younger families.

The projected construction budget is $167 (U.S.) per square foot, which is marginally lower than the average of $168 (U.S.) per square foot for other housing projects funded by the Pennsylvania Housing Finance Agency. This is despite the fact that Morningside Crossing meets Passive House standards, including a healthier interior environment and will use between 50% and 75% less energy.

This is an example of a project that incorporates energy-efficient elements into the design of an affordable housing project. The argument against creating passive homes that incorporate energy efficiency and elements that make the building more adaptable to climate change is often related to cost. This project provides an example where these elements have been incorporated while still retaining affordability. This highlights the opportunity for provincial and municipal policy makers to require elements to ensure energy efficiency and climate change adaptation in affordable housing projects.

4 Different Forms of Tenure and Creative Partnerships

There are creative ways for developers and housing providers to design projects that are affordable and provide increased financial security. This section describes some of the emerging forms of tenure and financial tools beyond simple rental or ownership housing.

99-YEAR/LEASEHOLD TENURE

Ninety-nine-year lease or leasehold tenure is a form of homeownership where one purchases the right to occupy a home for a fixed period—more than 20 years, and often for 99 years. The holder of the lease pays for property taxes, maintenance and repair. A leaseholder can buy and sell the right to occupy the property on the real estate market.

The 99-year lease or leasehold tenure option is proving increasingly attractive for publicly funded organizations, such as universities, school boards and municipalities, where retaining ownership over the long term of land, housing and other assets made possible by public investment is considered a matter of public policy. In British Columbia, for example, universities are not allowed to sell lands outright. Publicly funded institutions can choose to partner with developers or more commonly, create a non-profit community trust, which acts as the master developer.

New project leases often trade at a small discount to freehold prices but where location is exceptional, the price differential often disappears. Examples include 99-year leasehold housing developments undertaken by the University of British Columbia and Simon Fraser University (SFU). In the case of SFU, the mandate of the Trust that manages the development is to create affordable, sustainable housing but also to generate a revenue stream for the university. The SFU Community Trust applies the principles of universal design and considers its projects to be age-friendly. Dedicated seniors' buildings are also in the planning stages.

As projects near the end of the leasehold period, it is anticipated that leaseholders will choose to collaborate with the landowners to create higher density, higher-value redevelopment opportunities.

LIFE LEASE TENURE

Life lease projects can be found across the country and are designed primarily to appeal to older adults who have made the transition from the "family home" to dwellings that are a better match to their present and future needs. Physically, the projects often resemble condominium developments, either as small bungalows or apartment units.

Holders of a life lease purchase the right to occupy their unit and to benefit from the common facilities of the development for as long as they wish or are able. The legal owners of the project, known as sponsors, are typically set up as non-profit, charitable organizations sponsored by churches and other faith-based organizations, multi-cultural groups and municipalities, or nursing home operators.

The cost of the lease is set at market value, as with traditional property transactions, although the cost is typically less than acquisition of a freehold or condominium interest. Leaseholders pay a monthly fee, similar to a condominium fee, which represents their share of the common costs, including building common utilities, interior and exterior maintenance of common areas, management and insurance.

When the leaseholders, or their estates, wish to sell or transfer their leases, the price is once again set at market value. In some cases, where the developer is an institution, such as a pension fund, the price of entry is set below market value and the difference between the cost of production and reduced purchase price is recovered when the lease is returned to the property owner.

CO-HOUSING

Co-housing is a concept that originated in Denmark more than 40 years ago. Although not exclusively focused on older adults, its growing popularity is undoubtedly linked to the desire of baby boomers to blend the notion of independence with an interest in sharing resources in a community setting. Unlike traditional developments, co-housing begins with a group of future residents working collaboratively to create dwellings that meet their collective needs.

Co-housing projects comprise privately owned units designed around communal facilities, such as dining and recreational space, office space, guest rooms and shared laundry facilities. Individual units may include private kitchens, and some co-housing projects include larger kitchens providing opportunities for shared meals or other common facilities, such as tool sheds or children's play areas. As the residents of co-housing projects age, the co-operative principles can be expanded to provide for and include health care services.

The Canadian Cohousing Network is a non-profit organization active in five provinces (British Columbia, Alberta, Saskatchewan, Manitoba and Ontario) and features more than 30 co-housing communities across the country. Co-housing projects often begin with an individual identifying a desirable property. Increasingly, this "spontaneous" volunteer role is being taken on by consulting companies specializing in the development of co-housing projects. Proponents register a non-profit corporation, assume responsibility for recruiting members, managing the development process, and establishing the rules for ongoing maintenance and management of the project.

Some critics have observed that because members are self-selected, co-housing communities tend not to be very diverse. Other criticisms involve the often high cost of buying into the lifestyle.[20] In some provinces, there are fewer barriers to developing co-housing communities. Co-housing in British Columbia and Alberta falls under strata housing law, which is less precise in its definition of shared space than with condominium law. In Ontario, co-housing falls under condominium law, which complicates the building of co-housing because condominium law contemplates individual ownership of the unit. Quebec allows for co-property rights, and some co-housing projects, such as Cohabitant in the city of Quebec, have accessed CMHC Seed Funding.[21]

[20] https://www.thestar.com/vancouver/2018/04/29/co-housing-brings-people-together-in-unexpected-waysas-long-as-they-can-afford-the-price-tag-advocates-say.html
[21] https://www.canadianarchitect.com/the-cohousing-option

PUBLIC-PRIVATE PARTNERSHIPS

Municipalities and other publicly funded organizations are under increasing pressure to deliver affordable housing. A key contribution in this regard is the ability of a public entity to contribute land that has been deemed "surplus to requirements."

Municipalities and other public and non-profit entities can choose to contribute land as their share of project costs in partnership with a developer (which benefits non-profit developers by avoiding the need to fundraise the cost of purchase) or sell a leasehold interest outright, possibly at less than market rates. Some of the most innovative approaches to the use of surplus lands are those employed by churches and other faith-based organizations, often but not always as a way to complement their organization's mission and priorities.

In Burlington, Ontario, for example, the St. Elizabeth Anglican Church is working with the local branch of Habitat for Humanity (and experienced consultants) to redevelop underutilized church property with affordable housing, a percentage of which will be directed at seniors.

A challenge faced by St. Elizabeth's and dozens of other religious entities across the country is developing cost-effective projects on sites located within mature, low-density communities. To make the economics work and still be able to deliver "affordable housing," project partners have to work constructively and creatively with the local municipality and neighbours to arrive at a unit count that balances the practical need for intensification with good planning.

The proposed scheme (not yet finalized) in Burlington is to construct a four-storey apartment building with 20 or more affordable rental units for seniors, flanked with six townhouses connected to a new church meeting space. Redevelopment of the 1.4-acre site will be rounded out with eight single-family (market rate) dwellings located so as to provide a buffer from adjacent residences.

A combination of a Canada-wide public policy push for intensification and a need to achieve higher densities to satisfy the development pro forma is also forcing organizations like Habitat (and other non-profit organizations with an affordable housing mandate that rely on significant input from non-expert volunteers) to adapt their style of operation.

The first impact is on housing type: single-family dwellings provide ample opportunity for volunteers "to swing a hammer" but higher density concrete structures like the one proposed in Burlington will see the role of volunteers shift to helping with interior finishes rather than the traditional approach of working on wood-based structures.

A second, related trend requiring a change in approach from non-profit housing providers is the need to avoid gifting windfall profits to the homeowner—potential unintended consequences resulting from rapidly increasing real estate values. Options include a switch to providing affordable rental units or rent-to-own with restrictions on title regarding resale.

Experienced non-profit housing providers note that working with churches and similar organizations where development responsibilities may not be clearly defined requires patience and a willingness to be flexible over schedules and expectations. In British Columbia, however, the B.C. Conference of United Church of Canada has established a successful formula for making the most of church assets while respecting the desires of local congregations. A critical first step was to establish an office with a mandate to act as the link between the local church and potential development partners. When a church (possibly with a declining but committed congregation) indicates a desire to develop surplus or underutilized land, the office undertakes an objective evaluation, based on clear criteria. If a decision is made to proceed, the office then works with a community-minded but qualified consultant to conduct a market assessment. If positive, the office then selects a developer (chosen from a roster of qualified companies). The key to success is that the costs of conducting the all-important market assessment are at the consultant's risk, but are covered retroactively by the developer if the project is deemed feasible.

The City of Vancouver has partnered extensively with Concert Properties to bring long-term value to municipally owned land to create affordable rental seniors' housing. Concert has also demonstrated the feasibility of this approach in the city of Toronto, where the company purchased municipal land to create affordable seniors' housing. The key to the Concert Properties approach is that equity for the projects is provided by its partner, a pension fund, which is not subject to corporate taxes. The company then reallocates the "surplus" value equivalent to corporate taxes (that would otherwise be paid) to establish a revolving fund for future seniors' projects.

CASE STUDY:

Crestview Housing Cooperative, Saskatchewan, Canada

Crestview is a 43-unit housing co-operative for seniors aged 55 years and older located in Moose Jaw, Saskatchewan. The development includes one- and two-bedroom units, a secure entrance, parking, laundry on each floor and a lounge.

Housing charges include heat, electricity and water. Residents are expected to purchase shares at a cost $500. However, the cost of the shares is refunded when they leave Crestview. Residents are also expected to volunteer their time, knowledge and expertise to ensure the efficient ongoing operation of Crestview.

CASE STUDY:

Wolf Willow, Saskatoon, Saskatchewan, Canada

Wolf Willow is a co-housing community in Saskatoon for older adults. The project utilizes the condominium form of tenure that allows individuals to own their units but share common area expenses. It has a total of 21 units in a multi-family building with the common facilities making up about 4,500 square feet. The homes are fully self-contained and designed for accessibility. The common facilities include a kitchen, dining area large enough for the whole community, lounge, small office, music room, craft room, two guest rooms, common laundry, workshop, exercise room, and sauna. There are also common decks and gardens so residents can grow their own herbs, vegetables and fruits.

The building includes green features such as 2x8-in. walls, R-40 insulation, triple-glazed windows, and in-floor radiant heating.

CASE STUDY:

Sundance on the Green, Calgary, Alberta, Canada

Sundance on the Green is a life lease, independent living community for seniors. The development is located in the south Calgary, Alberta, neighbourhood of Lake Sundance and is close to public transportation, shopping and other amenities. The suites range from 244 to 366 metres (800 to 1,200 square feet).

Life lease is a homeownership arrangement with a guaranteed buyback at assessed fair market value. A monthly fee is charged to cover the costs of maintenance, building insurance, heating and lighting in common areas, and other costs. Buyback arrangements in developments such as Sundance can also be structured to take into account a deferred cost of infrastructure, which reduces the upfront costs to the homeowner.

Life lease projects are proving to be an attractive proposition for institutional investors willing to partner with private or non-profit developers. In many cases, responsibilities for managing operations are contracted out, allowing developers to remain focused on creating the best possible product for their target population. Choosing a location is always an important consideration because projects with access to local amenities can be developed with fewer in-house—and costly—resident-oriented facilities.

CASE STUDY:

Cranberry Commons, Burnaby, British Columbia, Canada

Cranberry Commons is a co-housing community comprising a cluster of 22 townhouses and multi-family residences arranged around a central courtyard. Units range from 500 to 1,300 square feet. The heart of the community is the Common House, which includes a kitchen, dining area, lounge and children's area. The common areas also include a guest room, laundry facilities, workshop, office, meeting room, children's playroom, reading room and storage. The outdoor spaces include a community garden, roof deck, parking and bicycle storage.

The development includes sustainability features, such as solar panels, a high-efficiency, in-floor radiant heating system, water-efficient toilets and showers, resource-efficient building materials, and healthy interior finishes. The project was awarded the City of Burnaby 2002 Environment Award for outstanding environmental achievements in planning and development.

Cranberry Common was developed as a non-profit organization based on the strata ownership model, where units are owned by the homeowner. Management of the common areas is administered by a non-profit corporation and expenses are shared by the owners.

A local consulting firm specializing in co-housing design and development secured the site, negotiated with the municipality to get the necessary planning permission and—critically—took on the responsibility of building the initial network of owners (members). The firm charged a fee for these services, which included securing funding, establishing the non-profit corporation and establishing the governance structure to facilitate ongoing operations. This type of venture can also be attractive for mission-driven, non-profit organizations interested in the co-housing model and willing to partner with specialist consultants.

CASE STUDY:

Solterra Co-housing, Ontario, Canada

The Solterra co-housing model utilizes a variation on the co-operative form of tenure. Residents share ownership of one home as well as all the household costs associated with that home. Each co-owner purchases an undivided percentage interest in the home and is registered as a tenant in common on the title/deed. Co-owners control all aspects of operating the entire home and regular household meetings are encouraged to ensure active participation of all owners. Solterra's Shared Ownership Guiding Principles provide a roadmap for joint decision making.

Each owner has their own private space, which typically includes a bed-sitting room with an in-suite bathroom. All residents share common areas, including the kitchen, dining and sitting areas. Owners also share the ongoing expenses for heat, hydro, taxes, water, sewage, propane, insurance and general household costs.

Solterra also offers in-home support services for each home if residents need additional care. Solterra In-Home Support Services (SISS) pre-screens, qualifies, and trains staff for food shopping and preparation, housekeeping, and administering the household budget.

The cost of each suite ranges from $110,500 for a suite in the Bracebridge location to $299,900 for a 625-sq.-ft. suite in the Barrie location. There are currently three Solterra homes in Barrie, Bracebridge and Brechin, and a fourth one is planned in Haliburton.

Solterra homes are suitable for healthy seniors who no longer want to live alone or who realize they require more assistance with daily living but who still want privacy and the benefits of homeownership.

5 Adaptable Housing Models

Adaptable housing is an approach to residential design and construction in which homes can be modified to meet occupants' changing needs over time. Adaptable housing units can be upgraded, expanded, divided into extra units or used for a variety of purposes throughout its life. Adaptable housing is designed to benefit people of all ages and abilities. For example:

- Ramped or step-free main entrances make it easier for families with young children in strollers or older adults that rely on mobility devices such as walkers.
- Wider doorways make it easier to move furniture and other objects around the home or accommodate wheelchairs.
- Power outlets at accessible heights of 450 mm (18 in.) are easier to reach for everyone.

There are benefits for seniors, as adaptable housing could allow older Canadians to "age in place" as they become older or experience illness or injury. Adaptable housing also carries broader societal benefits by saving on institutionalized care costs, and by making homes more accessible for visitors with mobility limitations.

A number of models have emerged that demonstrate the opportunities and benefits of adaptable housing and are described in this section.

ACCESSORY HOUSING

Accessory housing, or an accessory dwelling unit (ADU), is a supplementary unit of housing built on the same lot as an existing main home. This can take the shape of a separate structure or as an addition or retrofit within an existing home. Such housing is referred to as a "secondary suite," "in-law suite" or "granny flat."

Accessory apartments can be useful for accommodating aging family members. Aging parents can live close to their children and their families, or caregivers can live on the premises of the homes of aging people. For younger or more independent seniors, ADUs can also allow for cost-effective aging in place. For instance, a person can live in their ADU and rent out their main house, which could provide a source of income in retirement.

Municipalities can modify zoning to permit ADUs as of right, which eliminates the cost and complexity of seeking planning permission to add an ADU after the fact. Restrictive requirements for parking and setbacks have the potential to deter homeowners from undertaking improvements to create ADUs, as can neighbour opposition to increased density. Vancouver had a long battle in allowing secondary suites. Finally, in 2010, Council approved the creation of a streamlined process for laneway suite construction in two of Vancouver's largest residential neighbourhoods and, in 2013, expanded such provisions city-wide.

Many financial institutions do not recognize the income that ADUs provide in providing loans. Some financial institutions like British Columbia-based Vancity (which has a social development mandate) do offer loan products specifically for the construction of laneway suites.

LANEWAY HOUSING

Laneway housing is a particular type of accessory housing or ADU, where the placement of accessory housing on a lot that abuts underutilized side streets, or laneways, provides direct access separate from the principal dwelling. In Toronto a "laneway suite" is defined as "a self-contained residential unit, subordinate to a primary dwelling, in which both kitchen and bathroom facilities are provided and located on a lot within an ancillary building adjacent to a public laneway."[22] Laneway housing can provide a unique opportunity for seniors because they allow people to live independently in small-scale dwellings in established, walkable, transit-accessible neighbourhoods.

Laneway housing can be designed with seniors in mind using the principles of universal design. They can be developed so an aging parent can live close to their adult children while remaining independent. Optionally, a senior could rent out their existing home for additional income while living in a laneway home on their lot.

GROW HOME

Another approach to adaptable housing is the Grow Home, a housing design that is easily modifiable and can suit people of all ages and family situations. Grow Home starts as a townhouse or row house design that can be extended up and to the rear or be subdivided as the needs of its residents change. The Grow Home was originally developed by Avi Friedman and Witold Rybczynski of the Affordable Homes Program in the School of Architecture at McGill University in 1990. They wanted to create a home that would be affordable to low-income households and could expand as the family grew. A Grow Home is a three-storey townhouse on a base measuring around 4×11 m (14×36 ft.), with a floor area of about 100 m^2 (1,000 sq. ft.). The Grow Home includes a finished first floor containing a kitchen, bathroom and living space. One or more upper floors are open concept and left unfinished.

Over time, the occupants can finish the upper floors as they prefer to expand if they need additional room. Although the original idea was to make housing affordable, the Grow Home is a good example of adaptable housing that could allow for aging in place.

LOCK-OFF SUITES

Lock-off suites allow homeowners to change the size of their homes to accommodate their changing life stages.

Lock-off suites are self-contained units that are a part of a larger condominium unit. The lock-off suite includes its own bedroom, bathroom and kitchen and has its own direct entrance as well as a shared door to the main unit, which can be locked off. The owner of the condominium can use the unit personally or can rent out this lock-off suite for extra income. This housing concept was pioneered in the development of UniverCity at Simon Fraser University in Burnaby, British Columbia.

Given its flexibility, the lock-off suite concept is especially appealing for persons who plan to age in place. For instance, an older homeowner who decides to downsize could live in the main unit and rent out the lock-off suite for extra income, with the later possibility of using the suite for a live-in caregiver or family member. Also, a younger homeowner could use the lock-off suite for an aging family member.

INTERGENERATIONAL HOME SHARING

Intergenerational home sharing is the practice of older individuals (typically living alone) renting a part of their home to a younger person. The payment can take the form of money but can also involve the trading of household tasks, such as cooking, shopping, cleaning, home maintenance or taking care of pets or plants. This arrangement is meant to benefit both parties, as the older person gains assistance, a sense of security, and some companionship, while the younger person pays a subsidized rent. Cross-generational understanding is also seen as a benefit.

[22] https://www.toronto.ca/legdocs/mmis/2018/te/bgrd/backgroundfile-114362.pdf

The ability for aging adults to maintain their lifestyle while enjoying an increased sense of security and companionship is an inviting option for some. Intergenerational home sharing is a flexible and low-cost option for seniors looking to stay in their personal homes for as long as possible. For younger seniors, such an arrangement can be a way of enriching their social integration in the greater community.

Greater take-up of intergenerational home sharing might happen with improved initial matching and set-up process, together with monitoring and ongoing support or mediation. The Burlington Age-Friendly Seniors Council (in partnership with the Region of Halton) has developed the Halton HomeShare Toolkit. This resource acts as a guide for possible hosts and guests through helping them determine if home sharing is right for them. However, this does not yet include services such as background checks, payment facilitation or conflict resolution support.

Home Share International, a professional organization that supports home share programs all over the world, recommends that a third party be involved in the match process. This party can take the form of an organization or an individual. This form of matching is typically done through an agency, or through an online application (app).

For instance, the New York Foundation for Senior Citizens has operated an intergenerational home share program for the past thirty years as an affordable housing initiative. Recently, services have included a QUICK-MATCH database, which can match prospective hosts and guests based on 31 lifestyle factors.

In 2017, the City of Boston launched an Intergenerational Homeshare Pilot in partnership with the app Nesterly. The app is a platform meant to connect older adults looking to rent their space with younger graduate students looking for affordable rent in an otherwise expensive and competitive market. The service integrates reference and background checks as part of the matching process, as well as transparent billing and 24-7 support service throughout the stay.

While home sharing can provide positive impact for those involved, conflicts can arise, typically from differing expectations about how much time or care the home sharer wants or can give. Mediation, the ability to end an unworkable match, and mutual understanding of personal challenges experienced by the home sharer and homeowner can help to create a more positive experience.[23] Some of the benefits of organized intergenerational home sharing can also be found in retirement or care homes that integrate services with younger generations. This is often marketed as intergenerational living. Such an example is found in Orange Tree Living in Regina, Saskatchewan. Through their Learning Centre programming, senior residents can be involved in community socials, educational programming, and can benefit from the proximity of children's events and the daycare on premises.

MULTIGENERATIONAL HOUSING

Multigenerational housing is the practice of three or more generations of the same family living in the same household. There is a combination of factors that tend to lead to such an arrangement. Commonly, increasing costs of housing as well as growing student or consumer debt push families to combine resources under one roof. Other factors, such as increasing life expectancy, the draw of proximity to family, and the reduction of costs associated with childcare or senior care, affect making this decision as well.

Through a greater balance of family care and resources, multigenerational household arrangements can benefit all parties involved. Seniors can enjoy an increased sense of attention and security, while middle generation parents may see the perks of reduced childcare or house care costs.

Current innovations in multi-generational housing revolve around the design and feasibility of such structures.

Multi-generational living is more common among Indigenous and immigrant families. Indigenous and immigrant children are more likely to live with their grandparents and such families are more likely to make up multi-generational households. In 2011, immigrants accounted for 26% of Canada's population, but accounted for 54% of co-residing grandparent households.[24]

To better make use of shared space in a multi-generational household, many are turning to accessory dwelling units (ADUs). Such units could be a separate apartment within the home or can take the form of a separately built small home on the same property. Homes purpose-built with units as described above are becoming more common, as the demand has increased.

[23] *Exploring Home Sharing for Elders* by Henry Bodkina and Parnika Saxenab, published in the Journal of Housing for the Elderly, 2017, Vol. 31, No. 1, 47-56
[24] https://www150.statcan.gc.ca/n1/pub/75-006-x/2015001/article/14154-eng.htm

CASE STUDY:

Evolv35, North Vancouver, British Columbia, Canada

Evolv35 consists of 35 four-bedroom townhouses in Moodyville in North Vancouver. The units range from 1,554 to 2,070 square feet and include legal secondary suites that owners can use for their own purposes, rent out or use for family members, including older family members or adult children moving back home. The homes have been designed to Passive House standards and 2032 energy codes. The features include super-insulated exterior walls, high- quality, triple-glazed windows, fresh air ventilation system, and airtight qualities to avoid drafts and hot and cold spots. These are expected to reduce energy usage by 90% annually. The project is expected to be completed by Spring 2019 and units start at $1.3 million.

The generous proportions of the units, combined with the ability to bring in additional income from either the smaller or larger part of the unit, provide older residents with exceptional flexibility to adapt to changing lifestyle demands. The lower level part of the unit can be "locked off" from the rest of the unit. In addition to bathroom and kitchenette facilities, the lower portion of the unit has a soundproof, concrete floor, which protects the privacy of residents in that part of the unit. The location is also conveniently situated with respect to access to neighbourhood amenities, close to the bus and SeaBus transit hub at Lonsdale Quay.

CASE STUDY:

Harbour Landing Village, Regina, Saskatchewan, Canada

Harbour Landing Village is an intergenerational building that is designed to intentionally facilitate relationships across generations and to foster a village-like environment. The facility has five parts—an early learning centre for young children, university student living quarters, a licensed personal care home, assisted living suites and general public facilities.

There are three options for seniors, including assisted living suites where services, such as light cleaning and linen washing, are offered, units for independent seniors, and units for people who have dementia or Alzheimer's. These options provide the flexibility to accommodate seniors' changing requirements for their housing. There are also affordable options for university students who can pay a reduced rent in exchange for doing 30 hours of work a month in the building. The early learning centre has about 90 licensed spots as well as a before- and after-school program.

There are also amenities that are open to both residents and to the general public. These include an art studio, yoga and movement room, multipurpose room with cooking facilities, meeting rooms, library and daily programming.

CASE STUDY:

Age-in-Place Laneway Housing Project, Calgary, Alberta, Canada

The Age-in-Place Laneway Housing Project is led by Professor John Brown of the University of Calgary. Two prototype models were designed and built in the EVDS Design Research Innovation (DRI Lab) in 2015 and 2016. These were tested by older adults and health care professionals to evaluate architectural functionality, medical effectiveness and market appropriateness. The third prototype was constructed as a full working residence that would be deployed into the community and undergo two five-month in situ trials by seniors, their families, health care team, and neighbours to evaluate the architectural functionality, medical effectiveness, market appropriateness and neighbourhood impact. This project demonstrates the option of allowing seniors to remain in their own community and their own homes even as their needs change.

CASE STUDY:

Multi-Generational Housing, Netherlands

Two agencies in Beekmos, Houten, Netherlands have partnered to develop a housing project, which combines seniors with young women, some of whom have children and social issues. The goal of the project was to create affordable housing options, while building social relationships and providing additional services.

There are 17 housing units in the project. Of these, 13 are dedicated to the young mothers or young women who cannot live with their families. The other four units are reserved for elderly residents who act as coaches for the young women. The seniors bring their life experience and can offer useful advice to the young women while the young women offer companionship and provide an opportunity for the seniors to add a sense of meaning to their lives.

The building was purposely located in the city centre to provide easy access to services and amenities. The seniors live on the ground floor while the young women live in the upper floors. There is also a rooftop terrace and meeting spaces to encourage intermingling.

CASE STUDY:

HomeSharing Program, Northumberland County, Ontario, Canada

As illustrated by the most recent census results, many older women living alone encounter financial challenges after their spouse or partner has passed away. Other challenges with living alone are the potential for isolation and, in some instances, are compounded by concerns about an ability to maintain their homes in a state of good repair.

The HomeSharing Program in Northumberland addresses these issues by connecting women aged 55 years and older who are willing to share their homes with other women living in the community. Participants benefit from companionship and are able to share living costs and household responsibilities.

Interested women participate in a five-step admission process, the basis of which is used to identify suitable candidates willing to share their homes (sharers) as well as finding suitable candidates (shares).

The process includes contacting the HomeShare Coordinator and submitting an application; an interview; background and reference checks; searching for a match; and, once a potentially suitable match had been found, a two-week trial period. If the trial period is a success, an agreement is drawn up which outlines individual preferences, accommodation costs, household responsibilities and other aspects. The Coordinator provides ongoing support to both the homesharer and the homeowner through regular contact.

Accommodation costs range from $250 to $400 per month.

Halton Region operates one of the most robust programs, which has encouraged other local governments to launch programs of their own. A key recommendation in the City of Toronto's 2018 Seniors Strategy is a move to establish a home share program in Toronto. There is now a nationally focused organization to help communities develop their own programs (https://www.homesharecanada.org).

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