zero to 100

Planning for an Aging Population

Kristin N. Agnello, RPP, MCIP

This page has been intentionally left blank..

ZERO TO ONE HUNDRED:
PLANNING FOR AN AGING POPULATION

zero to 100

**Planning for an Aging Population:
A Toolkit for Planners and Designers**

Kristin N. Agnello, RPP, MCIP

plassurban

Disclaimer: Plassurban has made every reasonable effort to ensure the accuracy of this toolkit, but does not guarantee, and assumes no liability for, the accuracy or completeness of the information or its suitability for any particular purpose. It is the responsibility of users to obtain advice or apply their professional knowledge in the use of the information contained in this document, in the context of applicable local policies and regulations. Photos of planning and architectural elements are shown as examples only and the illustration or description of any products, services, or organizations in this toolkit does not imply endorsement by the author, contributors, or BC Housing.

Cover photograph ©istockphoto.com/xavierarnau

CONTENTS

ACKNOWLEDGEMENTS

PREAMBLE

Canada's demographic landscape is changing, and rapidly. An aging population means that more seniors than ever before are living in communities across British Columbia. Unfortunately, it also means that, somewhere in the region, there is a senior struggling to live in an environment that no longer suits her needs. Perhaps she no longer cares to drive, but finds taxis expensive and buses inconvenient. Her suburban home, once an oasis away from the bustle of downtown, now feels more like a burden than a blessing. From the large gardens to the numerous stairs, it is becoming too difficult to manage, to maintain, and to access. There are few options available that suit her changing needs, and fewer still that are readily available or affordable within the community that she knows and loves. She is too healthy for a nursing home, but she doesn't want to burden her adult children, neighbours, or friends. Her environment is hindering her ability to participate fully and independently in community life and, as a result, she is becoming increasingly isolated, frustrated, and dependent.

This is a story that is told time and time again across the province, the country, and the world. Age-friendly communities acknowledge that an environment which addresses the needs of its senior population is one that is friendlier, and more appealing, to people of all ages. The challenges faced by seniors in our urban and rural communities differ from those of the general population not by category, but by degree. This toolkit has been developed collaboratively, with input from local governments, non-profit housing organizations, architects, urban designers, urban planners, healthcare practitioners, developers, real estate specialists, seniors, and advocates. This toolkit is intended to provide a lens through which we can plan, design, and implement age-friendly housing and community development practices that benefit every generation. To plan our communities in a way that considers the changing needs of multiple generations is the key to a sustainable future.

PART I: INTRODUCTION

The Capital Regional District (CRD) is the regional government for thirteen municipalities and three electoral areas on Vancouver Island, stretching from the tip of the Saanich Peninsula, up island to Port Renfrew, and including the nearby Gulf Islands.

All thirteen municipalities, three electoral areas, the Capital Regional District, Capital Regional Housing Corporation (CRHC), and Islands Trust were invited to participate in this research. Participation was entirely voluntary and, over the course of research, six municipalities, Islands Trust, and the CRHC participated through an online needs assessment survey and, later, through in-person and telephone interviews. When additional stakeholders were identified through the consultation process, including seniors' advocacy groups, housing organizations, medical professionals, real estate specialists, private citizens, and non-profit organizations, these stakeholders were also contacted and invited to participate.

The majority of communities within the CRD have age-friendly policies in place, either as part of their Official Community Plans or as freestanding policies and strategies. The purpose of the survey and interviews, therefore, was twofold: to identify the specific needs of each municipality in terms of implementing their existing age-friendly policy objectives, and to provide insight regarding best practices and challenges in developing and implementing age-friendly policies for the benefit of other BC communities at various stages of their own age-friendly planning processes.

Overwhelmingly, participants identified a need for regulatory and policy strategies, checklists for planners and development officers, clarification of the *BC Building Code* accessibility requirements, and housing case studies. This toolkit has been developed as a direct response to the input and requests

from the local governments, housing organizations, and service providers across southern Vancouver Island.
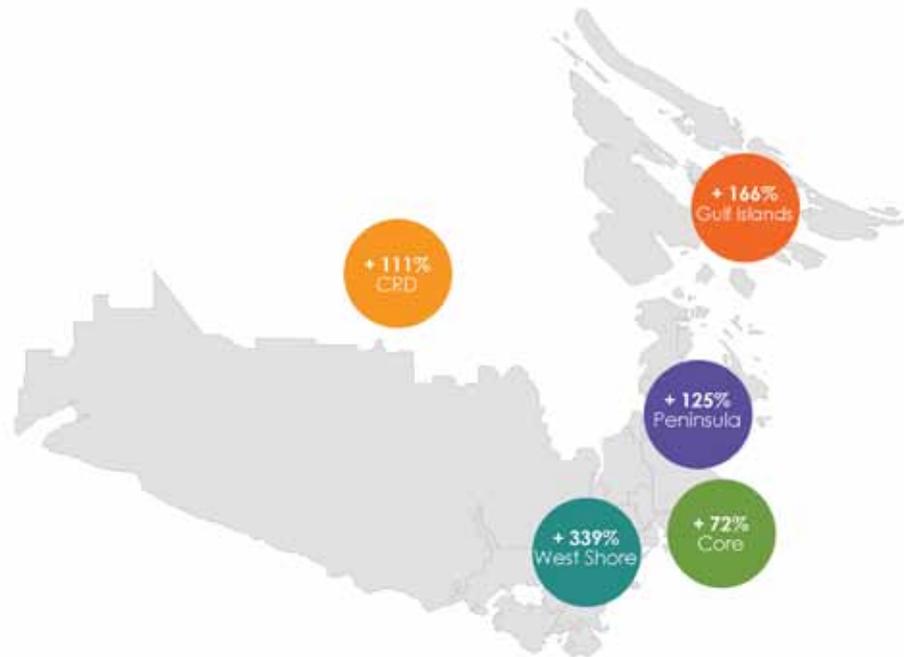
FIG. 1.1
PROJECTED
% CHANGE
IN SENIORS
over 75 from
2011 to 2038

1   SCOPE OF THIS RESEARCH

Advancements in modern medicine have meant that Canadians are living longer than at any other time in history. However, while life expectancy is a useful indicator in terms of planning for population density, service customization, and resource allocation, it measures only quantity, and not quality, of life. For urban planners, architects, and policy-makers, it is important to understand not only whether seniors are continuing to live in

our communities, but how. With age, losses in functional capacity - that is the ability to carry out the basic and instrumental activities of daily living[1] - become more common and more limiting. Poorly-designed residential and public environments have been shown to unintentionally double the loss of functional abilities for seniors[2]. The design of our homes and communities can either amplify or minimize an individual's need for assistance, directly impacting their ability to choose how and where they will live over the course of their lifetime.

Conservative estimates predict that, by 2031, nearly 1.5 million British Columbians – nearly one in four - will be 65 or older[3]. As a result, many local governments in British Columbia are currently adapting their policies, regulations, and programs to support and encourage the creation of age-friendly communities.
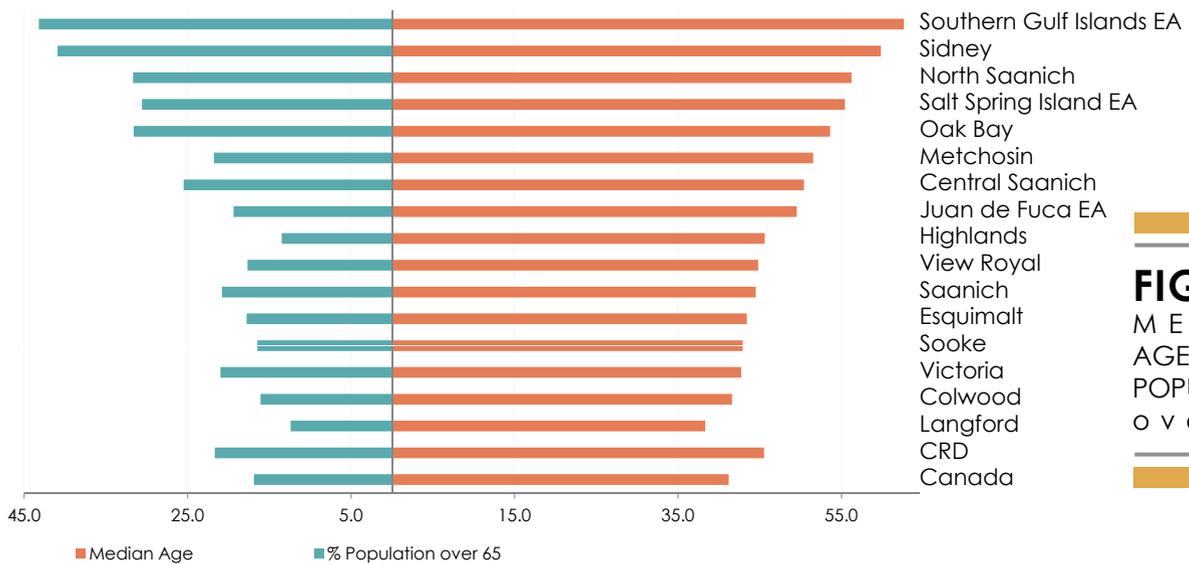
FIG. 1.2
M E D I A N
AGE AND %
POPULATION
o v e r   6 5

Median Age   % Population over 65

_____

1 Basic activities of daily living include walking, bathing, toileting, dressing, transferring, and eating. Instrumental activities of daily living include shopping, housekeeping, home maintenance, food preparation, and managing transportation. For further information, refer to: Kernisan, Leslie. "What are Activities of Daily Living (ADLs) & Instrumental Activities of Daily Living (IADLs)?" Better Health While Aging. 2017. Accessed August 2, 2017. http://betterhealthwhileaging.net/what-are-adls-and-iadls/
2 Jenkins in Ball, xiii
3 Government of British Columbia. "Age-friendly Communities." Accessed May 25, 2017. https://www2.gov.bc.ca/gov/content/family-social-supports/seniors/about-seniorsbc/seniors-related-initiatives/age-friendly-bc/age-friendly-communities

The objective of this toolkit is to provide a resource for local governments, housing organizations, and private industry to create, evaluate and implement strategies for supporting and maintaining age-friendly communities. It recognizes the multifaceted role that housing plays in the vitality and sustainability of our communities, as well as in the mental and physical well-being of our residents.

Directed toward both community planning and site-specific development activities, this toolkit attempts to posit recommendations that will help local governments collaborate with architects, developers, and private citizens to positively impact the design and development of age-friendly communities. With a focus on incremental changes that add up over time to create complete, age-friendly communities, this toolkit is dependent neither on local operating budgets, nor on significant community redevelopment initiatives. Its power is derived from evolving processes, attitudes, and relationships to educate and empower all participants to implement age-friendly strategies within a range of residential environments, rather than encouraging a migration of seniors into one segregated, specialized housing or community type.

2   WHAT IS AGING IN PLACE?

Age-friendly community planning and development practices are part of an international movement through which cities and communities around the world are responding to two dominant demographic trends: aging populations and urbanization. People are living longer, healthier lives and many are choosing to remain in their homes and communities, a trend known as 'aging in place.' The desire to age in place is a testament to the social and emotional investment that residents have in their homes and communities. Unfortunately, in many cases, these environments have not been designed to meet the needs of an aging population and seniors are forced to leave the homes and communities they love in order to find housing that is suitable to their changing physical, social, and cognitive needs.

North American planning systems have historically prioritized the creation of institutionalized, age-segregated retirement and care communities over residential, community-based solutions to meet the increasing needs of aging residents. Today, however, Canadian seniors are overwhelmingly

expressing their wishes to remain in their homes and communities as they age. This preference underlines the importance of designing functional, multigenerational communities that are welcoming, accessible, and appropriate for residents of all ages. As noted in the World Health Organization's Guide to Global Age-Friendly Cities:

An age-friendly city is not just 'elderly-friendly.' Barrier-free buildings and streets enhance the mobility and independence of people with disabilities, young as well as old. Secure neighborhoods allow children, younger women and older people to venture outside in confidence to participate in physically active leisure and in social activities. Families experience less stress when their older members have the community support and health services they need. The whole community benefits from the participation of older people in volunteer or paid work. Finally, the local economy profits from the patronage of older adult consumers. The operative word in age-friendly social and physical urban settings is enablement[4].

At its core, the ability to age in place refers to a person's ability to choose to remain in their home or community for as long as possible. For the purposes of this toolkit, aging in place is synonymous with aging in community. This means that residents are reasonably and affordably able to adapt their properties through modifications to their homes or properties, or are able to move within their communities to more appropriate accommodations over the course of their lifetimes. Age-friendly communities support not only physical access, but also facilitate the social interactions and interpersonal relationships that are critical to the wellbeing of an individual, regardless of age.

---

4 World Health Organization. *Global Age-friendly Cities: A Guide*. France: World Health Organization Press. 2007. Accessed July 12, 2017. http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_ English.pdf

FEATURES OF AGE-FRIENDLY HOUSING AND COMMUNITY DESIGN

- Housing choice is available for seniors, including affordable apartments, condominiums, and smaller homes for either rent or purchase;

- Secondary suites, including garden and laneway suites, are available to provide accommodations, encourage social interaction, and support opportunities for multigenerational living;

- Adequate parking is provided for caretakers, visitors, and home healthcare providers;

- Housing is located within close proximity to services and/or public transportation;

- Property tax deferral programs and subsidized property tax programs help seniors with housing affordability;

- Homes are designed and built to be adaptable, accessible, and easily maintained;

- Public health or long-term care outposts are permitted in residential communities to support aging residents;

- Small scale commercial developments are encouraged in residential communities to facilitate social interaction and meet some of the daily needs of residents;

- Products and services are available to be delivered by local businesses (groceries, medicine, library books, etc.) to support seniors remaining in their homes and communities; and

- Design is applied to assist seniors with vision and memory loss.

3   MEASURING AGE-FRIENDLINESS

When we design communities, we are designing places for people. The fact that so many Canadians wish to age in place is a testament to the social and emotional investment residents have in their communities. We know that a well-designed community provides social, psychological, and physiological benefits to residents, but how do we measure these impacts?

Investors, whether they are developers or local governments, want to be able to report a measurable impact resulting from their investment. These measures are used to validate programs, identify inefficiencies, and justify funding. We all want to see that our dollars make a difference, but the impacts of community design are not always straightforward. How do you measure how pleasant an environment is? How do you quantify quality of life?

Communities that are designed to be age-friendly, where it's safe and easy to walk to shops, appointments, and social engagements, mean that seniors are less likely to become isolated, thereby encouraging physical activity, reducing depression, and improving overall health. But, how we measure these impacts matters.

If, for example, a local government is piloting a project to support walkability - installing more crosswalks along an arterial roadway, introducing tactile and auditory signals, or increasing crossing times - we could argue that these investments would directly impact the ability of seniors to cross the street, making them more likely to walk to their destinations[5]. In turn, this increased walkability would support physical health and emotional wellness, provide opportunities for social interaction, and support patronage of local businesses. If, however, the only measure taken is the impact of crosswalks on vehicle travel times, then the pilot may be deemed a failure in spite

---

5 Increasing crossing times is a benefit not only to seniors and those with mobility impairments, but also to children. Pedestrian crosswalk signals in an urban area are typically based on the assumption that an average walking speed is 1.2 m/s. While many seniors are able to achieve this pace, a study in Sweden found that a comfortable walking speed is actually closer to 1.13 m/s for the general public and 0.67 m/s for many seniors over 70. In comparison, the average walking speed of a two year old child is 0.52 m/s and only 0.84 m/s for a three to six year old.

Canadian Council of Motor Transport Administrators. *Countermeasures to Improve Pedestrian Safety in Canada.* (CCMTA: 2013), pp. 26-29. Accessed May 30, 2017. http://ccmta.ca/images/publications/pdf//CCMTA_Pedestrian_Report_Eng_FINAL.pdf

Lárusdóttir A. R. and Dederichs, A.. "Evacuation Dynamics of Children: Walking Speeds, Flow Through Doors in Daycare Centres." Ph.D. Research, Technical University of Denmark, 2016. Accessed May 30, 2017. http://www.kias.org.uk/wp-content/uploads/2016/02/Walking-speed-children.pdf

of anecdotal evidence of its benefits. Instead, local governments need to identify direct and indirect indicators of quality: pedestrian numbers, air quality, retail patronage cycles, and chronic illness indicators. The fact is, if local governments don't capture data about the impact of urban initiatives on seniors, then it isn't really part of the conversation. If we fund what we measure, then we have to measure what we want to achieve.

INDICATORS OF AGE-FRIENDLINESS

In 2007, the World Health Organization compiled a *Checklist of Essential Features of Age-friendly Cities*,[6] which outlines the features a community should have to be considered age-friendly. It organizes these features, from elements of the built environment to the characteristics of social relationships, into eight pillars of community living, including:

- outdoor spaces and buildings;
- housing;
- transportation;
- communication;
- community support and health services;
- civic participation;
- respect and social inclusion; and
- social participation.

This checklist is useful to guide discussions about the current conditions in a community, however, it provides neither methods to empirically measure these features, nor strategies about how to achieve them.

Acknowledging the critical role of monitoring and evaluating the impact of programs and investments, the WHO developed a framework for measuring the age-friendliness of a community through the analysis of three core indicators: accessibility of the physical environment, inclusiveness of the social environment, and equity of information, programs, and services[7].

---

6 World Health Organization. "Checklist of Essential Features of Age-friendly Cities." 2007. Accessed June 2, 2017. www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf
7 World Health Organization. *Measuring the Age-Friendliness of Cities: A Guide to Using Core Indicators*. Japan: WHO Press, 2015. Accessed June 4, 2017. www.who.int/kobe_centre/publications/AFC_guide/en

The framework is not formally linked to the age-friendly cities checklist, but rather presents examples of how indicators could be defined and measured in each of the three broader core areas. This structure allows local governments to determine and refine local definitions and contexts, and apply these indicators to their own policies, programs, and initiatives.

The following section provides recommendations on how the age-friendly features outlined in the WHO checklist could be categorized within the structure of the core indicators. It proposes data sources for local governments to measure the impacts of their policies and programs, and suggests indicators that could be used to establish a baseline level of age-friendliness and monitor how it changes over time.

ACCESSIBILITY OF THE PHYSICAL ENVIRONMENT	INCLUSIVENESS OF THE SOCIAL ENVIRONMENT
Housing Transportation Outdoor Spaces and Buildings	Civic Participation Respect and Social Inclusion Social Participation

EQUITY
Communications Community Support and Health Services
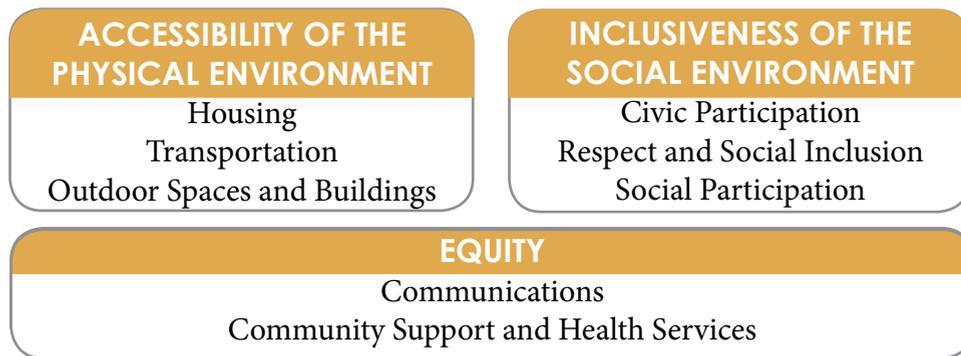
FIG. 3.1
INDICATORS & ESSENTIAL FEATURES of age-friendly cities

Accessibility of the Physical Environment

Accessibility of the physical environment refers to the ability of buildings and public spaces to respond to the needs of the widest possible range of the population. Fully-accessible buildings and spaces enable equal access for everyone, including seniors, women, children, and persons with disabilities. Accessible streets, transportation networks, and buildings are easily understood regardless of personal experience or knowledge, are designed to minimize hazards, and can be used easily and comfortably by people with a wide range of abilities and with a minimum of physical effort[8]. Accessibility of the physical environment is reflected in the eight pillars of community living through housing, outdoor spaces and buildings, and transportation.

---

8 Ibid. p. 37

Suggested Categories

Housing

The ability to live independently over time in one's own home depends on a number of factors, including good health, finances, and the availability of medical, social, emotional, and functional support. Seniors wishing to remain in their homes often need to modify their properties and lifestyles to meet their changing needs. Should seniors feel they are overhoused, either in terms of the space available or the level of upkeep required to maintain their home, a range of appropriate housing options should be available within their communities.

Outdoor Spaces and Buildings

Well-designed environments can enhance physical well-being, promote independence, foster social interaction, and provide opportunities for intergenerational learning. When residential developments are able to be located near vibrant, walkable, and accessible public spaces, the quality of life for everyone improves. Unwelcoming outdoor spaces and buildings, on the other hand, can disproportionately impact seniors' ability to perform the activities necessary for daily living, effectively isolating them from their communities.

Transportation

The accessibility of a building is affected not only by the design of its interior spaces, but also by its connection to the wider community. Transportation, whether on foot, by bus, or by private vehicle, is one of the primary factors that determine the extent to which a senior can engage with their community. Unlike seniors living in denser urban areas, those in rural and remote communities are less likely to have access to a range of transportation options should they be unable or unwilling to drive to their destination. Seniors who do not drive are particularly at risk of social isolation and may become increasingly dependent on caregivers for basic errands and appointments. Furthermore, while many seniors drive safely, a lack of public transportation options is commonly identified as the primary reason for seniors continuing to drive long after they feel comfortable doing so[9].

---

9 Government of Canada. "Age-Friendly Rural and Remote Communities: A Guide." Report prepared for the Federal/Provincial/Territorial (F/P/T) Ministers Responsible for Seniors. July 5, 2011. Accessed May 5, 2017. https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/seniors-aines/alt-formats/pdf/publications/public/healthy-sante/age_friendly_rural/AFRRC_en.pdf. p. 14

Suggested Data Sources for Local Governments to Measure Accessibility of the Physical Environment

- Community site visits and visual surveys targeting quality and quantity of age-friendly pedestrian facilities, including condition assessments and amenity inventories;

- Air quality assessment (Environment Canada);

- Accessibility audits at new and existing public buildings and outdoor spaces;

- Permit information on new developments regarding compliance with voluntary and mandatory accessibility standards and guidelines;

- Administrative data on municipal parks, roads, and infrastructure, including schedules for upgrades, current accessibility features, and usage data;

- Surveys of residents targeted toward the experiences of older adults;

- Data from local transit authorities, including ridership numbers and demographics, location of stops, frequency, and rider amenities;

- Census data relating to demographics, including age, gender, income, ownership, and disability statistics;

- Data from housing departments, including uptake of grant and subsidy programs, and tax adjustments;

- Foot traffic counts disaggregated by gender, age, and ability;

- Survey data from retail and service providers indicating patronage cycles, disaggregated by demographic and time of day;

- Island health data on the percentage of senior patients who are able to return home after an illness; and

- Public health data on prevalence of chronic health issues by area.

Suggested Input and Output Indicators

- Number of municipalities with accessibility policies and implementation strategies embedded in their plans, policies, and programs, including OCPs, neighbourhood plans, parks and recreation master plans, transportation master plans, downtown plans, and stand-alone plans;

- Net change in the numbers and proportions of dwellings in a

community by housing type: single-detached, multi-unit, duplex, townhouse, row house, mobile home, condominium, apartment, garden or laneway suites, secondary suites, cohousing, and co-operative units;

- Proportion of older adults who spend 30 percent or more of their before-tax income on housing;

- Change in number of applications for permits that meet or exceed mandatory and voluntary accessibility guidelines;

- Net change in number of public transportation stops and transit vehicles with designated accessible facilities;

- Net change in number of transit stops with benches and/or shelters;

- Number of seniors riding public transit;

- Number of new and proposed pedestrian paths in areas with high senior populations;

- Proportion of older adults who report that their community is accessible to pedestrians and to those who use wheelchairs, walkers, scooters, and other mobility aids;

- Number of crosswalks with adequate, age-friendly crossing times within 800 m of a commercial district;

- Net change in foot traffic counts in mixed-use communities, disaggregated by age, gender, and ability;

- Number of seniors claiming property tax grants, home modification grants, or provincial tax grants;

- Net change in percentage of publicly-owned housing units that are accessible;

- Net change in percentage of new homes that are built to visitability or accessibility standards; and

- Proportion of homeowners and tenants who report that their homes are accessible or easily adapted.

Inclusiveness of the Social Environment

Inclusiveness of the social environment refers to the ability of residents to be actively involved in the planning, programming, governance, and daily life of their communities. In the context of this toolkit, inclusiveness refers to housing developments, programs, and policies through which the dignity of older adults is respected and enhanced. Local governments can play a significant role in encouraging inclusiveness of the social environment through consulting and collaborating with seniors in planning activities, providing opportunities for volunteering and civic engagement, and supporting the development of multigenerational communities.

Suggested Categories

Civic Participation

Seniors offer a wide breadth of local knowledge, specialized skills, and life experience to community initiatives. As the needs and limitations of older adults differ in degree and not category from the general population, their participation provides a critical lens that is integral to ensuring that communities meet the needs of all residents. Local governments should seek opportunities to leverage and capitalize on the knowledge and experience that seniors offer through the introduction of seniors' advisory boards, targeted representation on advisory planning commissions, and/or accessibility review boards.

Respect and Social Inclusion

Older adults who are active and involved in their communities enjoy better health, are happier, and are less likely to experience social isolation. Local governments can promote social inclusion by developing accessible, intergenerational spaces for recreation and public gatherings, organizing and programming public spaces with a variety of activities, encouraging and supporting community events, and providing civic opportunities that accommodate and include older adults.

Social Participation

Social participation is a critical element of any community. Designs for downtowns, commercial main streets, and public plazas focus heavily on opportunities for social participation, interaction, and gathering. The design of residential communities, however, often lacks opportunities

for social interaction and community engagement, instead focusing on the parceling out of land as personal space. Local governments have the unique opportunity to work with communities, residents, developers, and stakeholders to introduce incremental, collaborative planning and design strategies that encourage social participation and fulfill age-friendly policy objectives. From facilitating legacy bench programs to allowing temporary road closures for block parties, municipalities have a significant role to play in supporting the ability of citizens to actively define and participate in the social character of their communities.

Suggested Data Sources for Local Governments

- Survey of seniors relating to participation in volunteer activities;
- Administrative data relating to participation on boards, committees, and public engagement events;
- Surveys targeted toward seniors living in and near a community;
- Reports from local volunteer-driven organizations about volunteer demographics;
- Demographic data of visitors reported by cultural facilities and community events;
- Administrative data relating to permits and street closures for local events;
- Administrative data relating to uptake of legacy programs, such as bench and tree dedications; and
- Program registration and patronage data from recreation centres and parks.

Suggested Input and Output Indicators

- Electoral data outlining the number of older, eligible voters who voted in the last municipal election;
- Proportion of seniors who self-report engaging in social activities at least once a week, including meeting with friends/neighbours, engaging in religious or cultural activities, and volunteer or part-time work;
- Proportion of seniors who are able to access a seniors' centre or other gathering place, such as a library or community centre;
- Net change in applications and awards of grants for community-

driven programs and interventions;

- Proportion of seniors reporting participation in volunteer activities;

- Net change in patronage of local historic attractions and museums, including the creation of new content in collaboration with local seniors;

- Net change in requests for senior-focused recreation, fitness, and social programs;

- Net change in the number of programs offered to seniors or to multiple generations by local businesses and recreation centres; and

- Net change in the number of active social clubs (Lions Club, Rotary Club, etc.) and net change in the number of older adult members.

Equity

Equity refers to those interventions required for all members of a community to enjoy the same level of access to their environment as others in their community. While equity plays a key role in the accessibility of the physical environment, it also has a significant impact on a senior's ability to navigate and thrive in their community. Equity acknowledges that active participation in a physical and social environment often means that additional support is required. Equity is reflected in the pillars of community living through communication and information, and community support and health services.

When all individuals experience the same conditions, users are treated **equally**.

When individuals are provided with different supports to make it possible to have equal access, users are treated **equitably**.

When everyone can enjoy equal access without special supports or accommodations because the source of the inequity was addressed, users are treated **inclusively**.
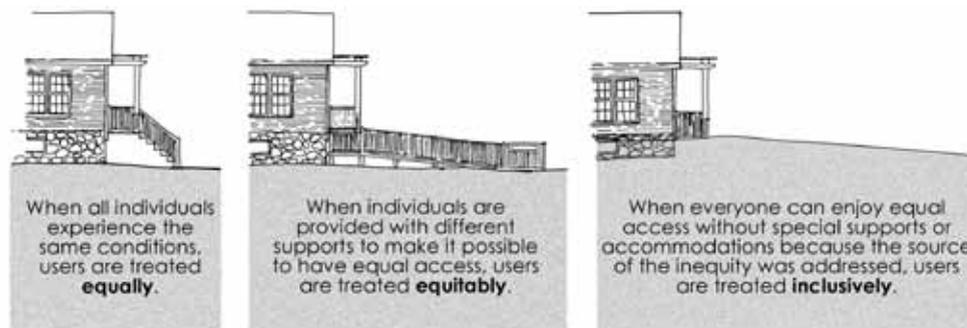
FIG. 3.2
EQUALITY, EQUITY, AND INCLUSION

Communication and Information

Equitable communication is critical to a resident's participation in, and understanding of, their community. Effective communication ensures that seniors are informed about any community events, available programs, and civic information that is available to support those who choose to age in place. Similarly, equitable communication strategies can help residents navigate their physical community through landmarks, signage, intuitive wayfinding, and tactile signals. From legible signage on a public street to contrasting colours in a private kitchen, legibility of the built environment is essential to support seniors facing challenges related to vision loss, memory loss, or dementia.

Community Support and Health Services

The Joint Center for Housing Studies at Harvard University found that over half of seniors entering long-term care cite dissolution of their social support, and not physical ailments, as their primary reason for entering extended care[10]. As a result, healthcare is increasingly being repositioned as a function of urban environments, where active living, holistic healthcare, and essential services are integrated into the activities of daily life. From encouraging walkability to accommodating minor retail or healthcare outposts within a residential community, local governments can help position public health concerns, from general wellness to acute care, along a continuum of community living.

Suggested Data Sources for Local Governments

- Administrative data relating to uptake of senior-specific programs, services, and grants;
- Census data disaggregated by demographic, geographic, and socioeconomic subgroups to identify priority areas for the implementation of age-friendly strategies;
- Survey of residents, targeted toward older adults, regarding the availability and uptake of social support programs;
- Data from healthcare providers relating to underserviced residential communities or identifying communities which could benefit from

10 Harvard University. "Projections & Implications for Housing a Growing Population: Older Households 2015-2035." Report. Joint Center for Housing Studies, Harvard University. 2016. Accessed June 13, 2017. http://www. jchs.harvard.edu/sites/jchs.harvard.edu/files/harvard_jchs_housing_growing_population_2016.pdf

a healthcare outpost;

- Data on service uptake and needs from senior-focused and/or volunteer resource services (meals on wheels, nurse next door, etc.);

- Data from local businesses regarding needs and requests of seniors (seats at counters, deliveries, house calls, etc.);

- Data from tourist information booths about wayfinding and navigation challenges and inquiries;

- Administrative data on development and rezoning applications for residential and mixed-use communities; and

- Data from local bylaw enforcement and police services on vehicle and pedestrian infractions.

Suggested Input and Output Indicators

- Number of municipalities with policy and regulations related to wayfinding and signage strategies that consider the needs of older adults;

- Net change in uptake by developers to include legibility, wayfinding, and communication strategies in new developments;

- Number of applications for new healthcare outposts incorporated into residential communities;

- Number of applications for small, neighbourhood retail developments in residential neighbourhoods;

- Net change in wait times and applications for extended care facilities;

- Net change in uptake of tax deferral and reduction programs for seniors;

- Net change in the number of visits by emergency personnel to homes occupied by seniors; and

- Number of seniors who self-report having easy access to a family doctor within their community.

COMMUNITY DESIGN AND PUBLIC HEALTH

Public health officials have long maintained that a focus on treatment is neither an effective nor a sustainable solution to addressing the overall health of a population. The design of our environments can be modified to support and address a number of public health objectives, from physical activity to mental health. In fact, some health professionals have recommended that Health Impact Assessment checklists be integrated into the municipal development application process, with priority given to those applications which meet the greatest number of health indicators[11]. A report compiled by the Canadian Institute for Health Information states that:

Houses are the building blocks of a neighbourhood, which in turn can also be associated with the health of its residents ... neighbourhoods can be linked to various health outcomes through their physical features, their status as a healthy environment, the proximity of services, their socio-cultural features and the reputation of the area[12].

According to the Canadian Institute for Health Information, more than 60% of the total health spending in Canada in 2014 was directed toward ensuring access to hospitals, medications, and physicians. Long-term care emerged as the next largest area of spending, representing 10.6% of total health expenditures.

Contemporary research suggests that many of the leading chronic illnesses in Canada, including cancer, diabetes, cardiovascular diseases, chronic respiratory diseases, mental illness, and obesity, can be directly influenced by the design of the built environment[13]. It is apparent that community-based lifestyle and amenity factors are essential to maintaining the physical and mental health of all residents. As populations age, this impact is amplified, with investment in age-friendly, active community features showing direct correlations to decreased health spending. The importance of measuring the impacts of designing and developing an age-friendly built environment cannot, therefore, be understated.

11 Groupe Intersol Group. "Canadian Population Health Initiative Healthy Urban Places: Moving from Knowledge to Action." May 16, 2007. Workshop Proceedings Report. Prepared for Canadian Institute for Health Information. Accessed August 22, 2017. https://secure.cihi.ca/free_products/ph_workshop_report_e.pdf. p. 10
12 Ibid. p. 5
13 Infographic adapted to a Canadian context from Ball, Livable Communities. p. 47

The World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity[14]." As we age, we become increasingly reliant on close physical and social proximities to ensure that dignity and quality of life are maintained. Healthy communities are dependent on a number of physical and social conditions that enable residents to participate in, and be supported by, their communities. As an inherently forward-thinking profession, urban planners are ideally positioned to influence the development of healthy, inclusive communities for people at all stages of their lives.

6%
6%
88%

60%
30%
10%

Canadian Health Expenditures (2014)

■ Social and environmental factors that can be influenced by urbanism

■ Genetics and other factors

■ Access to care

Factors Influencing Health Outcomes

■ Social and environmental factors that can be influenced by urbanism

■ Genetics and other factors

■ Access to care

FIG. 3.3
HEALTH
EXPENDITURES
VERSUS
HEALTH
OUTCOMES

14 World Health Organization. "Constitution of WHO: Principles." 2017. Accessed August 23, 2017. http://www.who.int/about/mission/en

4 WHOSE RESPONSIBILITY IS IT?

Investment in age-friendly community infrastructure has wide-reaching implications, helping to offset social and healthcare costs in other areas while creating an environment that is safer, more welcoming, and more desirable for residents of all ages. The impact of age-friendly community design on the daily lives of individuals, and on society as a whole, makes investment in age-friendly communities imperative to the sustainability and accessibility of a community. But, local governments cannot do it alone. While municipalities can collaborate with residents, developers, and activists to formulate plans and policies that articulate and shape a community's future, the realization of these plans and policies relies significantly on private, and often small-scale, investment and development activities.

Three key players share responsibility for shaping the built environment; local governments, citizens, and private developers. This toolkit posits recommendations at various scales and degrees so that, over time, the built environment may adapt to meet the changing needs of residents of all ages without significant cost to any one party.

THE ROLE OF GOVERNMENTS

While the focus of this toolkit is on local governments, all levels of government contribute to the creation of age-friendly communities. Local, provincial and federal governments all have a role to play in the outcome of age-friendly community and housing design, policy, and regulation[15].

Local Governments

- Developing, adopting and enforcing policies and plans that encourage the creation of age-friendly communities and housing;
- Including mandatory and voluntary accessibility requirements into local regulatory documents;
- Permitting a range of age-friendly housing typologies, including co-operative and cohousing developments, secondary suites, garden suites, and laneway suites;

---

15 Government of British Columbia. "Role of Government." Housing and Tenancy: Local Governments. Accessed May 25, 2017. http://www2.gov.bc.ca/gov/content/housing-tenancy/local-governments/role-of-government

- Providing pre-zoned land for age-friendly developments, particularly in areas that are walkable and/or well-serviced by current or planned public transit;

- Incentivizing age-friendly projects through streamlining the development approval process, providing tax and fee incentives, introducing awards programs, and/or allowing density bonuses;

- Educating local government staff and the public about mandatory and voluntary visitability and accessibility standards for residential developments, particularly those that can be incorporated at low or no cost and which increase the livability and marketability of a property;

- Considering the needs of older adults, including times and facilities that are senior-friendly, when organizing consultation events. Including microphones for projecting the voices of speakers, larger font presentations and/or hand outs, and one-on-one discussion opportunities all contribute to encouraging and maximizing the participation of older adults;

- Considering the needs of seniors when developing transportation, parks, and neighbourhood plans;

- Providing opportunities for seniors to provide input on development proposals through representation on municipal boards and committees, including Planning Advisory Committees, Design Review Committees, Accessibility Committees, Development Appeal Boards, and/or Seniors' Advisory Committees; and

- Seeking opportunities to align age-friendly community initiatives with smart growth and sustainability programs.

Provincial Government

- Maintaining the *BC Building Code*, including illustrated guidelines for accessibility as outlined in the *Building Access Handbook*;

- Introducing the *Building Act* (2015) to bring greater consistency to technical building requirements in the province and to enable BC municipalities to balance consistency with flexibility;

- Providing leadership to make BC more accessible through its 10 year action plan, *Accessibility 2024*;

- Partnering with local governments, non-profit agencies, and housing stakeholders;

- Partnering with local health authorities, healthcare providers, and public health stakeholders;
- Funding affordable and accessible rental housing programs and projects;
- Funding public health initiatives;
- Provides home renovation and property tax credits to BC seniors;
- Enabling municipal regulation of real estate development, land use planning, and development finance; and
- Investing in public transit and infrastructure.

Federal Government

- Maintaining the *National Building Code*;
- Partnering with the provincial government and investing in housing, transportation, and public health;
- Providing financial assistance for Canadians through tax credits and exemptions; and
- Researching and disseminating information relating to the housing market and related topics through the Canada Mortgage and Housing Corporation.

THE ROLE OF PRIVATE CITIZENS

Age-friendliness is created through a unique blend of social and spatial elements that require a shared philosophy of collaboration rather than a top-down enforcement approach. As the primary users of public and residential spaces, private citizens have a critical role to play in the creation of age-friendly communities. More often than not, it is private citizens who are undertaking tenant and property improvements, developing infill properties, and incorporating secondary suites into existing properties. The choices that residents make in terms of flexibility, accessibility, and relationships to the community have immense power to shape the character of a neighbourhood over time. Private citizens can influence the age-friendly character of their communities through:

- Participating in consultation events, advisory boards, and commissions;

- Building, modifying, or renovating individual properties to meet visitability or accessibility standards;

- As a landlord or building owner, practicing the "duty to accommodate" tenants' mobility challenges, safety concerns, and accessibility issues;

- Contributing to "gentle densification" through the introduction of secondary suites, garden and laneway suites, or infill housing;

- Contributing to the creation and maintenance of a socially-connected community through organizing and participating in block parties, volunteer opportunities, community lunches, and other activities;

- Contributing to the public realm through the introduction of seating areas, little free libraries, and safe walking paths on the edges of their properties;

- Encouraging municipal, provincial, and federal governments to prioritize age-friendly community planning and design; and

- Demanding accessibility and visitability features in newly-built homes and communities.

THE ROLE OF PRIVATE INDUSTRY

Private industry must balance the needs and wants of a target market, compliance with local regulations, and the financial feasibility of a given project. This toolkit encourages open, ongoing collaboration between local governments and developers, beginning with initial project conception, in order to accommodate and incorporate age-friendly features over and above the minimum required by the *BC Building Code* without significant additional costs to any one party. Private industry can participate in the creation of age-friendly communities and developments through:

- Collaborating with local governments during conceptual design to address accessibility features through design, limiting additional costs during construction;

- Providing a minimum standard of visitability to all new semi-detached and detached homes, with higher levels of accessibility in multi-unit and mixed-use developments;

- Understanding their role in driving market demand by offering innovative, creative, and proactive housing developments;

- Incorporating flexible floor plans into developments, to anticipate the changing needs of an aging population and provide flexible space for users of all ages; and

- Advocating for mixed-use communities that are well-serviced by public transportation.

5   RESPONSES TO COMMON CONCERNS

To be effective, urban planning and community design must be collaborative, consultative, and responsive to the needs of those directly impacted by the policies, procedures, and regulations which are being developed. Urban planning and development is often controversial because it invariably impacts the social, emotional, and financial investment of community members. This section addresses a number of questions and concerns that frequently arise in discussions surrounding age-friendly communities.

1. *Seniors are an overrepresented group and a focus on age-friendly communities disregards the needs of other age groups.*

For the first time in history, Canada is facing a demographic shift that will see seniors outnumber children in many Canadian communities. Canadians are living longer, healthier lives than at any other time in history and are choosing to remain in their homes and communities longer than previous generations. As a result, local governments have a duty to incorporate these demographic shifts and projections into their planning and policy documents and processes in order to ensure that communities are safe, accessible, and appropriate for residents of all ages.

Age-friendly communities focus on far more than elder-care—they include features that increase safety for children and women, increase accessibility for people with temporary or permanent disabilities, facilitate the creation of support networks for neighbours and families, and provide opportunities for intergenerational learning and social engagement. Considering the needs of seniors does not exclude other generations, but rather provides a broader lens through which local governments can consider the needs of a larger portion of the population.

2. *We want to attract more families to our communities; we do not need to attract more seniors.*

There are a number of significant benefits to creating and maintaining diverse, multigenerational communities. Seniors can help support local businesses; many patronize shops and services during the day, when many younger adults are at work and children are at school. Seniors are often willing volunteers and mentors, offering a wide breadth of experience and knowledge. Finally, as residents who may be at home during the days and evenings, seniors contribute to community safety and security by offering additional "eyes on the street."

Local governments and policy makers must also bear in mind that, as community plans are implemented over a 20-25 year period, communities will naturally begin to mature. Aging is a universal and indiscriminate process; many of the young adults who are currently settling in BC communities will themselves be seniors as the current community plans come to fruition. It is important for local governments to consider how to retain and support young adults and families so that they can remain in their communities throughout their lifetimes.

3. *Most municipalities already have age-friendly community policies in place.*

Planning is a forward-thinking and responsive field, which requires ongoing implementation, monitoring, evaluation, and negotiation. While many communities have policy wording that supports the creation of age-friendly communities, many do not have specific strategies, activities, and targets that are readily implementable, defensible, enforceable, and measurable. Specific, age-friendly strategies and objectives provide direction on how to achieve the desired outcome and are less likely to be ignored or misinterpreted.

4. *Housing developments already include a percentage of adaptable units.*

Many local governments require that new multi-unit developments include a set percentage of adaptable units that can be easily converted to accessible units in the future. This figure is generally based on the percentage of the population that currently has mobility challenges and is intended to ensure that adaptable or accessible units are available in the future for those who require them. Unfortunately, adaptability and accessibility requirements are typically enforceable only in new, larger, multi-unit developments. This means that new and existing single detached homes, duplexes, townhouses,

row houses, and other low-to-medium density housing typologies - typologies that make up the bulk of the housing stock - are often exempt from accessibility guidelines and regulations. Furthermore, it is neither possible to predict when a formerly able-bodied person will require additional accessibility features in their own home, nor whether accessible units will be available to rent or purchase at the time they are needed, particularly within a resident's "home" community.

5. *Accessibility features are only needed by a small portion of the population.*

According to the 2016 Canadian Census, fourteen percent of Canadians over the age of fifteen - one out of every seven - reports living with a disability. It would be imprudent, however, to assume that the same people continuously comprise this fourteen percent. Some people recover from injuries, while others suffer from new afflictions. As people age, it is not possible to predict when, and to what degree, a person's functional abilities will change. Percentage-based accessibility requirements are inadequate to meet the changing needs of an aging population and accessible units are unlikely to be readily available or affordable within a resident's home community at the onset of disability.

Seniors, people with disabilities, adults with an injury, young parents carrying car seats and strollers, movers carrying furniture, first responders maneuvering a stretcher, and postal workers carrying packages all benefit from accessible buildings. When properly designed, accessibility features do not distract or inconvenience any users. However the lack of accessibility features can make the built environment very difficult to navigate for people facing temporary or permanent mobility challenges.

Whether the user is a child with a broken leg, an adult recovering from surgery, a new parent pushing a stroller, or a senior struggling with a loss of mobility, accessible design assumes that we are all only temporarily able-bodied.

6. *Accessibility features are unattractive.*

Like most design elements, if poorly considered or left as an afterthought, ramps and other accessibility features can have a negative impact on the overall aesthetic of a building. If incorporated early into the design and planning process, however, accessibility features can be unnoticeable or leveraged to add to the overall aesthetic of the building or property. For example, grading can be designed to support no-step entries, interior

doorways can be widened, floor plans can be designed for flexibility, and blocking can be installed into walls for future installation of grab bars. None of these features would have a significant impact on the overall appearance of a home, yet they would contribute tremendously to the accessibility and age-friendliness of the home.

7. *Accessibility features are expensive and make units unaffordable.*

In new construction, accessibility features may be incorporated into the building and site design so that additional accommodations and modifications do not need to be made at a later date. For example, site grading can often be designed to facilitate a no-step entry, blocking can be installed into walls so that grab bars can be readily and inexpensively installed at a later date, and doorways and circulation spaces can be widened to prevent significant renovations in the future. If considered early, the above features can be fully

incorporated into the design of the building and site, often at a nominal price, as opposed to being addressed through expensive and, often, unattractive modifications when access becomes an issue for the resident.

8. *Major changes to the BC Building Code are required in order for municipalities to enforce accessibility requirements.*

Through its ten-year action plan, *Accessibility 2024*, the Province of British Columbia has indicated its objective of becoming the most accessible province in Canada by 2024. The *BC Building Code* and the *Building Access Handbook*[16] already include a number of specific regulations relating to accessibility for larger, multi-unit developments. Additionally, the Canadian Standards Association (CSA) provides nationally-accepted, voluntary standards for the design and application of accessible features in residential construction. While local governments may currently be unable to regulate accessibility in simple, residential developments, the *BC Building Code* is generally updated every 5 years. This means that there is significant opportunity for local governments to advocate for changes to the code for future regulation, in much the same way that green building design features are now regulated.

It is important to note, however, that local governments have the opportunity to influence and incentivize desired design practices, which are not directly related to safety, through their development and permit approval processes. Zoning practices, including density bonusing, performance zoning, modified development standards, and fee levies, all have the potential to support local governments in advancing their accessibility goals and objectives, without the need to directly regulate these features.

9. *Let developers and builders incorporate age-friendly features on a voluntary basis. Builders will provide accessibility and flexibility when the market demands it.*

History has taught us that voluntary programs are met with far lower uptake than legislation and regulation. Incentivization by local governments helps increase adoption, but alone may prove unsustainable over time, particularly in a small community or slow real estate market. The solution, therefore, lies

---

16 The Building Access Handbook is an illustrated commentary on the access requirements outlined in the 2012 *British Columbia Building Code*. It can be found online at: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/2014_building_access_handbook.pdf

in a combination of education, incentivization, negotiation, regulation, and collaboration.

While local governments shape communities through policy and regulation, builders and developers actively shape the housing market through the products they offer. In order to incorporate age-friendly features into a development without significant impact on the cost or appearance of the dwelling, it is necessary to discuss accessibility and flexibility features early in the design process. Often, new developments are pre-sold at the beginning of construction, at which point the design of the buildings is largely complete. When buyers request changes to building and site design, they are often told that these changes are impossible or too costly. However, by incorporating accessibility considerations or other age-friendly features into new homes and communities, developers are able to market their products to a larger sector of the population. By positioning age-friendly features as strong marketing assets, builders are more likely to consider incorporating these features from the outset and can, in fact, influence the development of trends in the housing market.

10. *Affordable units should be targeted toward families rather than seniors. Seniors typically do not have mortgages, have equity in their homes, receive pensions, and have lower monthly household costs. They are therefore less likely to be in core housing need.*

A recent study completed by the BC Non-Profit Housing Association indicates that the number of seniors is projected to double over the next ten years. Over this same time period, core housing need and rental demand by seniors may increase by as much as 25%[17]. While affordable rental and ownership properties are limited in the CRD, affordable units that are also accessible are virtually non-existent. This toolkit proposes strategies for increasing affordable housing stock that is available on the market for all residents, while encouraging municipalities to make significant efforts to increase the amount of accessible, affordable housing stock, so that these units will be able to meet the needs of seniors, regardless of income, now and in the future.

---

17 Albert, Marika. "Saanich Peninsula Affordable Housing Needs Assessment Report: Companion Report to the Saanich Peninsula Housing Data Book Technical Report." Report. Community Social Planning Council of Greater Victoria. August 2016. Accessed June 4, 2017. https://northsaanich.civicweb.net/document/22970/SaanichPeninsulaAffordableHousingNeedsAssessmentSu.pdf

PART II: PLANNING AN AGE-FRIENDLY COMMUNITY

L ocal governments hold a unique position as policy-makers, regulatory authorities, and intermediaries between private industry and the public interest. Age-friendly policies must, therefore, recognize the whole-life needs of all residents and should include specific language that provides regulatory and procedural guidance for planning officers to negotiate age-friendly features into all scales, scopes, and phases of development. The use of specific, age-friendly policy language has the ability to determine not only outcomes, but also attitudes toward seniors as a population. Limiting age-friendly housing references to "seniors' care facilities" or "supportive living" arrangements positions seniors as a special-needs group, potentially overlooking the needs of those who do not require specialized medical care, but could benefit from additional accessibility features in their homes and communities.

Recognizing the critical role of urban planning in anticipating and accommodating the future needs of an aging population, a majority of municipalities within the CRD now have age-friendly policies in place, either as stand-alone planning documents or as part of their Official Community Plans. Still, a country-wide study conducted in 2011 by the Public Health Agency of Canada determined that, although municipal engagement with older adults was generally effective across the country, few substantive changes were being made to land use policy and regulations, and many municipalities had been unable to advance or achieve their age-friendly community goals and objectives[18].

The multi-faceted and multi-stakeholder nature of development means that there is often a considerable time and resource gap between policy and

PLANNING

---

18 Miller, Glenn. "No Place to Grow Old: How Canadian Suburbs Can Become Age-Friendly." *IRPP Insight*. No. 14 (March 2017). Institute for Research on Public Policy. Accessed September 1, 2017. http://irpp.org/wp-content/uploads/2017/02/insight-no14.pdf

LEGISLATION, REGULATION, AND POLICY

A common frustration for citizens is the apparent disconnect between the municipal policies developed through a collaborative community planning process, and what is built over time. There is often confusion about why a development is permitted when it seemingly does not comply with the approved local policies. Isn't the policy binding? If not, what is the point of it?

There are three interconnected aspects of municipal development: legislation, regulation, and policy. Legislation refers to a law enacted by a legislature or other governing body. In Canada, only the provincial and federal governments can pass laws in the form of "legislation". The Province of British Columbia delegates to local governments the ability to create policy and regulation through the *Local Government Act* and the *Community Charter*. Similarly, the *BC Building Act* defines and limits the authority of local governments to set technical building requirements. In other words, the Province is empowered to pass legislation that is applicable throughout the province, while local authorities are empowered to impose policies and regulations that only apply within their respective operating territory and which may be unique to each local government. Municipal bylaws, procedures, and regulations must comply with any applicable provincial legislation.

Regulations are rules or directives made and enforced by local authorities, as permitted by legislation. Municipal zoning bylaws and provincial building codes are examples of rules that provinces authorize local authorities to enact within their specific operating territories.

Policy refers to the principles, rules, and guidelines formulated or adopted by a municipality to reach its long-term goals[19]. Policy documents, such as Official Community Plans and master plans can help to define the overall objectives of a community, but are binding only to the issuing organization itself. In other words, citizens and private developers have no legal obligation to comply with the objectives and guidelines outlined in a policy, provided that they meet all other regulations and legal requirements for development (zoning, building code, etc.). If, however, a citizen or developer wishes to propose a change to the regulations for a particular site, for example, rezoning to allow an alternative land use or density, then local government staff is obligated to apply their approved policies to guide the development and application of new regulations for the site. Ideally, policy and regulation will be aligned in order to advance a specific objective. In reality, however, regulation is not readily altered and often lags behind policy.

implementation. While the creation of policies and strategies related to aging in place is a significant step in the right direction, implementation of these policies remains largely outside of local government control. Those features which most support age-friendliness in private dwellings - accessibility, adaptability, and maintainability - are often not directly regulated by local governments.

Policy objectives that are inherently supported through regulation tend to be specific and generally accepted by design and development professionals as industry standards. They tend to be focused on how a particular building or development will perform over time, as is the case with sustainability objectives. Age-friendly community principles, on the other hand, tend to be focused on the less measurable social impacts of a given development. As a result, without supportive regulation, municipal planners often feel they have neither the authority nor the opportunity to advocate for age-friendly features within a proposed development.

Therefore, to further support the advancement of municipal objectives, roles and responsibilities within the development process itself may need to be reexamined. For example, pre-development meetings present an ideal opportunity to request, though not necessarily require, that age-friendly features be incorporated into a development. Oftentimes, these features can be included at a nominal cost and contribute to a development that is marketable to a larger, more diverse audience and is better positioned to support the age-friendliness of the community as a whole. Unfortunately, many planning officers, whether for reasons of procedure or personal comfort, are hesitant to enter into design and technical conversations, and requests for additional age-friendly features are either ineffective or completely absent. A lack of regulatory authority is often cited as a key reason for the absence of discussion and collaboration during the development approval and permitting processes when, in fact, many designers and developers would be willing to incorporate age-friendly features if encouraged to do so when the design itself is being developed.

Design is a tool for problem solving and local governments have the opportunity to challenge designers to rise above constraints, not by constraining them further, but by openly discussing context, objectives, and limitations. It is the difference between asking a designer to find a way to cross a river, and telling them to build you a bridge.

---

19 Business Dictionary. "Policies and Procedures." 2017. Accessed May 18, 2017. http://www.businessdictionary.com/definition/policies-and-procedures.html

FIG. 6.1
FACTORS IMPACTING COMMUNITY OUTCOMES

LOCAL GOVERNMENTS				CITIZENS				PRIVATE INDUSTRY		
POLICY	+ REGULATION	+ RESOURCES	+	PARTICIPATION	+ CLEAR PROCESS	+ INCENTIVES	=	CHANGE		
	+ REGULATION	+ RESOURCES	+	PARTICIPATION	+ CLEAR PROCESS	+ INCENTIVES	=	CONFUSION		
POLICY	+	+ RESOURCES	+	PARTICIPATION	+ CLEAR PROCESS	+ INCENTIVES	=	ANXIETY		
POLICY	+ REGULATION	+	+	PARTICIPATION	+ CLEAR PROCESS	+ INCENTIVES	=	STAGNATION		
POLICY	+ REGULATION	+ RESOURCES	+		+ CLEAR PROCESS	+ INCENTIVES	=	FRUSTRATION		
POLICY	+ REGULATION	+ RESOURCES	+	PARTICIPATION	+	+ INCENTIVES	=	FALSE STARTS		
POLICY	+ REGULATION	+ RESOURCES	+	PARTICIPATION	+ CLEAR PROCESS	+	=	RESISTANCE		

6 LOCAL GOVERNMENT TOOLKIT: POLICY

A CLOSER LOOK AT THE PLANNING PROCESS

While exact procedures vary from municipality to municipality, generally speaking, the development application process follows a similar pattern. If age-friendly features are considered during conceptual design - at the pre-application stage - a holistic, integrated solution can often be found that makes a development more accommodating, inclusive, and accessible. Oftentimes, it is possible to incorporate age-friendly features into a building or site at little-to-no additional cost to owners, builders, or designers. If these discussions are left too late, modifications to the design and construction of the building can be incredibly costly in terms of both time and money. For example, if a local government wishes to encourage housing with a no-step entrance to support accessibility and visitability, and if the subject is raised during pre-application meetings, the designer should be able to incorporate this feature through site grading, a lowered foundation, or integration with a driveway or adjacent laneway. If, however, this request is left to the building permit or construction stage, the designer would have little choice other than to provide a ramp. In this scenario, the feature is not required, but instead is voluntarily addressed through design in order to create a development that meets the policy objectives of the community.
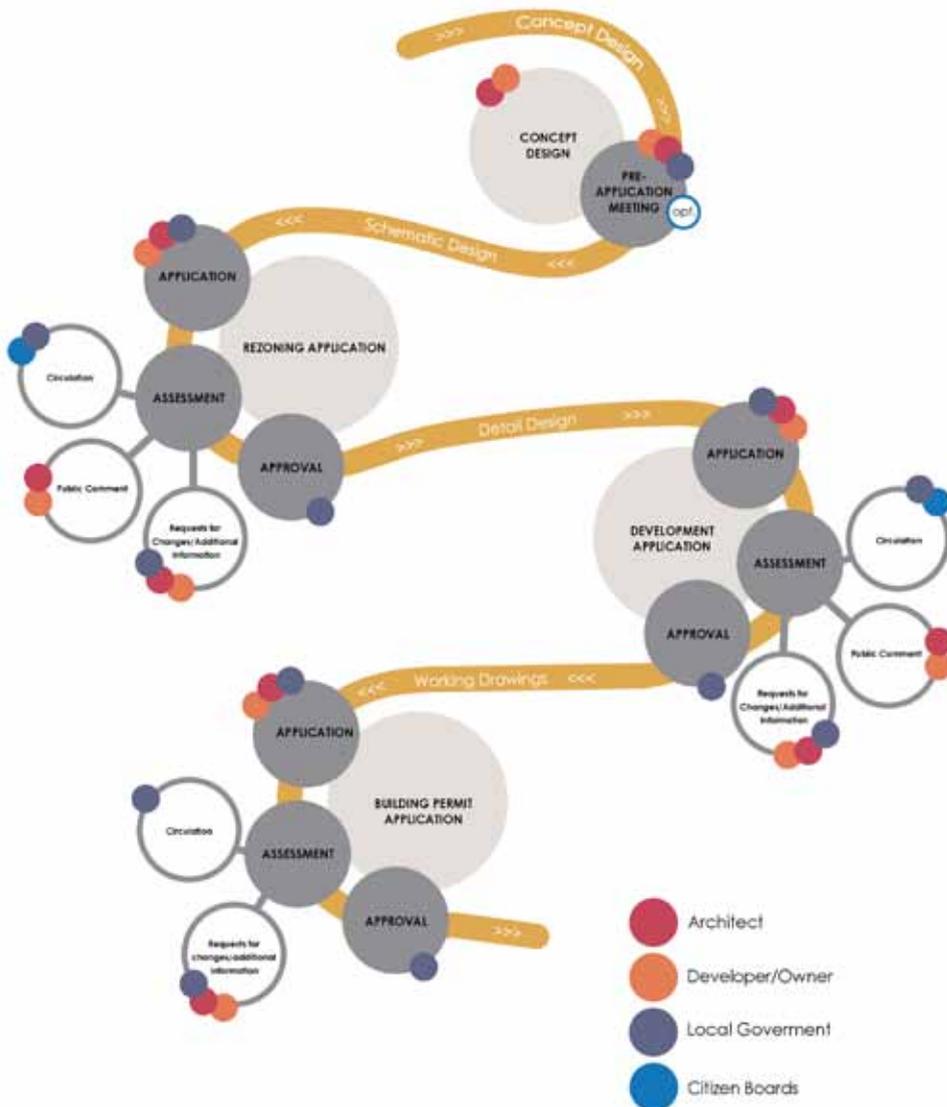
FIG. 6.2
TYPICAL
MUNICIPAL
DEVELOPMENT
PROCESS

The following table outlines the typical development application process for a complex development. It identifies the design phase associated with each stage of the planning process, materials required for submission, and potential points of discussion. This table identifies opportunities for early and open dialogue between local governments, developers, and designers in order to advance age-friendly objectives through positive and proactive design solutions.

PRE-APPLICATION MEETING: CONCEPTUAL DESIGN PHASE

EXPLANATION	MATERIALS REQUIRED FOR SUBMISSION AND DISCUSSION	POTENTIAL POINTS OF DISCUSSION
Early identification and resolution of design challenges helps lead to predictable and timely approvals. Pre-application meetings are voluntary in many municipalities, but provide an opportunity for local governments to table requests for features that can contribute to the age-friendliness of a development or a community.	None formally required, but typically a preliminary concept, including land use and density, is presented. For more complex projects, preliminary comments regarding utilities may also be provided, including drainage, water and sewer, electricity, waste management, fire safety, and transportation. In some cases, a business case or feasibility study may also be provided.	• Mix and proximity of land uses; • Visitability and accessibility features, including wider doorways, no step entries, accessible washrooms on the main floor, and flexible floor plans; • Size, type, and tenure of units; • Percentage of adaptable and/or accessible units in multi-unit buildings; • Affordability; and/or • Walkability features.

REZONING APPLICATION: SCHEMATIC DESIGN PHASE

EXPLANATION	MATERIALS REQUIRED FOR SUBMISSION AND DISCUSSION	POTENTIAL POINTS OF DISCUSSION
Rezoning applications are circulated through local government departments to ensure they comply with municipal policies and guidelines. During the rezoning process, the policies contained in the Official Community Plan will guide redevelopment decisions. Should the applicant wish to alter the use or density of a site in a manner that does not align with the OCP or subsidiary planning documents, an application for an amendment must also be prepared and submitted. In some municipalities, rezoning applications are circulated to citizen boards and/or Committees of Council. An opportunity for public engagement and feedback is provided before the local government approves or refuses the application.	When a proposal does not meet the land use, existing regulations and/or density requirements as specified in the Zoning Regulation Bylaw, a rezoning application is required. Materials generally required for submission include: • Photos or illustration (to scale) of building in relation to neighbouring buildings; • Site plan and landscape plan showing amenity areas, parking, access and egress; • Building elevations; and • Schematic floor plans. Additional materials may be required, such as environmental site assessments, traffic impact assessments, and geo-technical assessments.	• Mix and proximity of land uses; • Size, type and tenure of units; • Percentage of adaptable and/or accessible units in multi-unit buildings; • Affordability; • Walkability features; • Site grading to accommodate no step entries; • Visitability and accessibility features, including wider doorways, an accessible washroom on the main floor, and flexible floor plans; • Connection to the street and public sidewalk from the main entrance; and/or • Exterior features, including ramps, landscaping, street furniture, and lighting, as applicable.

DEVELOPMENT PERMIT APPLICATION: DETAILED DESIGN PHASE

EXPLANATION	MATERIALS REQUIRED FOR SUBMISSION AND DISCUSSION	POTENTIAL POINTS OF DISCUSSION
Municipal staff circulates and reviews development applications to ensure that they comply with existing bylaws, policies, and guidelines. In many cases, the rezoning and development application processes are combined. In some municipalities, development applications are circulated to citizen boards and/or committees of Council for recommendations regarding approval or variances. An opportunity for public engagement and feedback is generally provided before the local government approves or refuses the application.	**Project and Zoning Summary** • Site zoning and building calculations; • Building footprint and height calculations; • Parking spaces and calculations; • Landscaping plans; • Site plans; and • Existing plants and trees. **Site Plan and Building Elevations** • Size and location of site, including adjoining streets and location of lanes; • Size and location of proposed new construction and existing structures; • Existing and finished grades at all corners of buildings and at property corners; • Overall building height elevation; • Easements, right-of-ways, water courses, and areas restricted by covenant; • Site servicing plans; • Natural and finished grades; • Setbacks and separation; and • Site furnishings and off-site information (street furnishing).	• Site grading design to accommodate no step entries; • Connection from the main entrance to the street and public sidewalk; • Exterior details and finishes, including lighting, signage, non-slip paving, and accessible parking stalls; • Interior details and finishes, including wider doorways, coloured doors in multi-unit buildings, coloured thresholds, an accessible washroom on the main floor, and non-slip flooring throughout; and/or • Inclusion of low-maintenance building and landscaping materials.

BUILDING PERMIT APPLICATION: WORKING DRAWINGS

EXPLANATION	MATERIALS REQUIRED FOR SUBMISSION AND DISCUSSION	POTENTIAL POINTS OF DISCUSSION
Working drawings are circulated to relevant municipal staff members to ensure they comply with technical requirements.	**Site** • Size and location of site, including adjoining streets and location of lanes; • Size and location of proposed new construction and existing structures, including decks, projections, and cantilevers; • All setbacks to all existing and new buildings, decks, projections, and cantilevers; • Finished grades at all corners of buildings and property corners; • Detailed building elevations; and • Site servicing plans. **Building** • Dimensioned cross sections and construction details; • Floor, deck, ceiling, roof and wall assemblies; • Structural details; • Elevations; • Window and door locations and sizes; and • Spatial separation calculations.	• Interior and exterior finishes and details that increase accessibility and age-friendliness (e.g. door hardware, coloured doors, flush thresholds, etc.); and/or • Incorporation of low-maintenance building and landscaping materials.

CREATING AN AGE-FRIENDLY DEVELOPMENT CHECKLIST

While many age-friendly design considerations can be resolved if discussed early in the planning and design process, it is not reasonable to expect that planning officers will broach these topics without policy or administrative support. In this case, a development checklist that is directly linked to desired age-friendly outcomes would be a useful tool to guide local governments, developers, and designers in discussing age-friendly features of new developments.

Development checklists are administrative tools, typically created by local government staff to encourage and advance the objectives of an approved Official Community Plan. While not intended to be regulatory or binding in nature, development checklists provide a consistent basis for application review and comparison between design options, thereby supporting open dialogue between citizens, elected officials, developers, and local governments regarding age-friendly objectives. In some cases, a Council resolution may be required to authorize the use of a development checklist during municipal development processes.

A development checklist is typically utilized during rezoning, subdivision, development permit, and development variance permit applications. There is limited potential to include additional checklists for building permit applications as this process is already heavily regulated and local governments may find that it is too late to negotiate the inclusion of additional accessibility or age-friendly features at this stage.

The process for using a development checklist to negotiate and evaluate age-friendly features is as follows:

1. Applicants complete the age-friendly development checklist as part of their pre-application discussions with local government staff. If this meeting is waived, they may also have the option of completing the checklist and submitting it with their development or rezoning application. As voluntary recommendations, these checklists are intended to be used as an educational resource for applicants, encouraging developers and homeowners to construct more accessible and adaptable dwelling units that contribute to the local government's age-friendly community goals and objectives.

2. Local government staff ensures compliance with any mandatory categories on the checklist and evaluates opportunities to encourage voluntary compliance by the applicant. When performance on a development checklist is linked to an incentive program, such as a fee waiver, award program, or fast-tracked application process, local governments can reward applicants for compliance. These incentives can offset up-front design and construction though decreased time and monetary costs during the permitting process, and through increased marketability of the development upon completion.

3. Council and/or development review committees receive the checklist for information when considering a development or rezoning application.

Sample development checklists have been included in Appendix C.

RECOMMENDATIONS

To be effective, policy must be implemented successfully. In order to align age-friendly policies and recommendations with municipal planning processes, a number of key policy activities are recommended.

1. Ensure that municipal policies include an adequate number of policy directives promoting specific age-friendly features.

2. Ensure affordable housing policies are specific and consider the needs of all residents, including older adults.

3. Ensure there are direct policies targeting an aging population, including policies addressing housing affordability, accessibility, choice, and opportunities for residents to age within their communities. Policies relating to laneway houses or accessory dwelling units should be equally applicable in all neighbourhoods and should be compatible with every type of existing home (subject to building code requirements).

4. Introduce a policy basis for budget allocation toward incremental changes to the built environment. For example, aligning accessibility programs with existing neighbourhood renewal programs will allow age-friendly infrastructure to be incorporated with minimal additional cost.

ACCESSIBILITY 2024

Local governments are not alone in their efforts toward creating age-friendly policies and community objectives. The Province of British Columbia has signaled its interest in designing and planning age-friendly communities, in accordance with the *United Nations Convention on the Rights of Persons with Disabilities*, through the creation and advancement of its *Accessibility 2024 Action Plan*. The plan identifies key goals, as well as measures and initiatives, which will help the Province achieve its accessibility objectives by 2024. Out of the goals outlined in this document, three have the potential to significantly guide and impact the advancement of age-friendly housing and community design policies and regulations by local governments[20]. These are:

1. Accessible Built Environment

Goal

BC has the most accessible building code and the most declared accessible communities in Canada by 2024.

Measures

- The number of BC communities incorporating accessibility strategies into their Official Community Plans.
- The percentage of publicly owned and leased facilities that are accessible.

Initiatives identified by the Provincial Government

- Ensure all government-owned and leased customer service building stock is fully accessible by 2020 (where possible given heritage constraints).
- Develop guidelines for accessibility that communities can incorporate into their Official Community Plans.
- Continue to update the building code to be the most accessible in Canada.
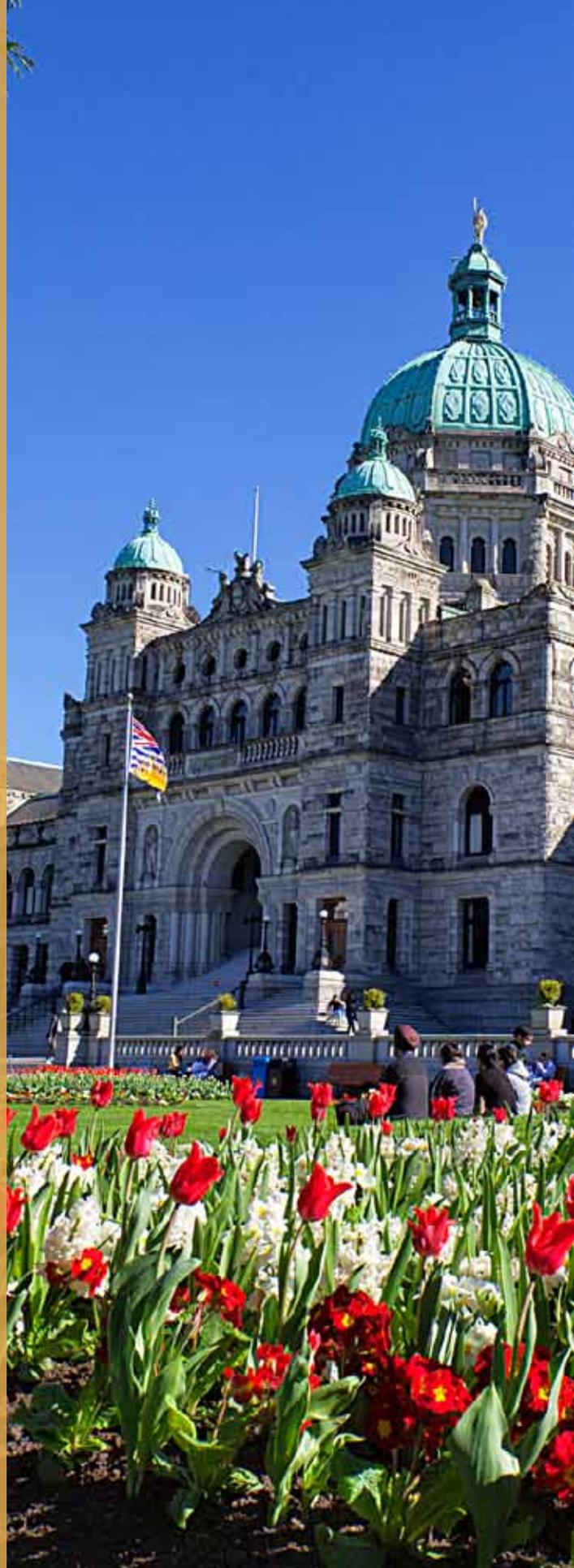
2. Accessible Housing

Goal

BC has more accessible housing options than other provinces in Canada by 2024.

Measures

- The percentage of BC publicly-owned housing that is accessible.
- The percentage of new homes that are built to be accessible.

Initiatives identified by the Provincial Government

- Introduce measures requiring a percentage of all new homes be constructed to include adaptability requirements.
- Develop a checklist to make existing housing more accessible.
- Continue to explore options for a registry of accessibility housing in BC.

3. Inclusive Communities

Goal

More communities in BC are proclaimed accessible communities than anywhere in Canada by 2024.

Measures

- By the number of BC communities declaring themselves accessible communities.

Initiatives identified by the Provincial Government

- Develop accessible community guidelines for communities to incorporate into their Official Community Plans.

Introducing age-friendly language into provincial policies and regulations signals to developers, municipalities, and citizens that the Province wishes to make age-friendly communities a priority. Arguably, these policies can be used to support local governments in enforcing and advancing age-friendly policies and objectives as they encourage, negotiate, and incentivize age-friendly features in both buildings and communities.

5. Encourage or require attendance at a pre-application meeting for all new developments to provide an opportunity to discuss accessibility features.

6. Identify priority neighbourhoods, which could serve as demonstration communities and could be readily adapted to meet age-friendly principles. In particular, communities that are well-serviced by public transit, close to amenities, or in walkable districts may be well-positioned to serve as demonstration communities.

7. Identify communities where a significant percentage of residents are aged 50+ and live in single detached dwellings. Over the 10-20 year course of a neighbourhood plan, these middle-aged residents will become seniors in need of housing options, amenities, or additional support if they choose to remain in their homes. Local governments can introduce pilot projects, partnerships, grants, or other incentives to target these areas.

8. Introduce an age-friendly development checklist that can be completed during pre-application, rezoning, and development application phases and discussed throughout the development process.

9. Develop policies for incentivizing accessibility in residential developments, including density bonusing guidelines, additional land use allowances, and tax and fee exemptions.

10. Develop an accessibility award program, which provides recognition and marketing opportunities for developers who voluntarily comply with age-friendly design guidelines.

11. Develop opportunities for older adults to participate on municipal boards and committees, as part of an Advisory Planning Commission, Accessibility Committee, or Seniors' Advisory Committee.

12. Examine existing policies for language that limits age-friendliness or positions seniors as a special needs group.

13. Identify opportunities to incorporate small, neighbourhood-based retail and healthcare outposts at predetermined locations to support aging in place.

14. Identify measurable age-friendly community targets and strategies that can be monitored and evaluated over time.

---

20 Province of British Columbia. "Accessibility 2024: Making B.C. the Most Progressive Province in Canada for People with Disabilities by 2024." Report. 2014. Accessed June 4, 2017. https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/accessible-bc/accessibility-2024/docs/accessibility2024_update_web.pdf

7   LOCAL GOVERNMENT TOOLKIT: REGULATION

Regulations allow local governments to guide and enforce development at two interrelated scales: the community scale and the building scale. Through municipal zoning bylaws, local governments regulate and enforce matters relating to the community scale, including land use, proximity, massing, orientation, and density.

If the age-friendliness of the built environment is measured in relation to how accessible it is[21], then zoning has the potential to serve as an effective means of modulating accessibility requirements based on the overall land use and configuration of a particular area. For example, housing that is located close to a commercial district and transit stops should necessarily provide higher levels of density, access, and inclusivity than that which is located farther from service centres. Generally speaking, the closer a housing development is to a town centre, and in particular to personal and professional services, shops, and transit, the easier it is for an aging adult to live independently over time. For this reason, rural communities face particular challenges in supporting aging populations and older residents may require higher levels of social and institutional support in order to cope.

Just as zoning regulates development at the community scale, the building code regulates development at the building scale. The *British Columbia Building Code* identifies accessibility as an important objective in public buildings and larger residential developments, and ensures that these buildings are designed and constructed so that a person with physical or cognitive limitations can reasonably access and move through them. However, application of the building code is determined based on the scale of development and most small residential and retail developments, commonly referred to as Part 9 buildings, are exempt from mandatory accessibility requirements.

---

21 World Health Organization. "Measuring the Age-Friendliness of Cities: A Guide to Using Core Indicators." Report. 2015. Accessed June 4, 2017. www.who.int/kobe_centre/publications/AFC_guide/en

FIG. 7.1
FEATURES THAT CAN BE ADDRESSED THROUGH REGULATION

AGE-FRIENDLY COMMUNITY FEATURES THAT CAN BE ADDRESSED THROUGH ZONING[22]	AGE-FRIENDLY COMMUNITY FEATURES THAT CAN BE ADDRESSED THROUGH THE BUILDING CODE
• Walkability (connectivity, street and sidewalk width, traffic speed, intersection design, curb heights); • Land use and mixed land use; • Travel distances to public transportation; • Location of building entrances; • Adaptable and affordable housing requirements; • Density, type, and scale of residential developments; • Parking requirements, including accessible parking spaces, on and off-street parking, and parking reductions; • Permitting small neighbourhood retail or health-care outposts to provide amenities within otherwise disconnected residential communities; • Location of parks and open spaces; and • Privacy in residential developments.	• Building access; • Parking requirements; • Accessibility of washrooms, circulation spaces, and refuge areas; • Accessibility of multi-unit residential buildings; • Corridor, doorway and room widths to enable wheelchair access; • Heights of light switches, electrical outlets and fixtures; and • Slopes of ramps, step riser heights, and grade changes.

ZONING FOR AGE-FRIENDLINESS

Access is as much a function of land use and community design as it is of architecture. In the past, single-use zoning has supported the creation of large tracts of homogenous developments, in which the majority of the

---

22 Ball, *Livable Communities for Aging Populations, 37.*

community was comprised of one or two housing types. This type of zoning allows significant economies of scale for developers, allowing multiple units to be erected economically and in a relatively short period of time. However, this model also encourages demographically-cohesive communities and, over time, residents may be forced to leave their community in order to find housing that is better suited to their changing needs. Rezoning individual sites based on policy objectives provides only a one-time exception from typical zoning requirements and is, therefore, the least predictable method for adapting communities.

There are currently five key regulatory mechanisms in use by Canadian municipalities that have proven effective in influencing residential development and which, if aligned with voluntary accessibility recommendations and planning policies, hold significant promise for creating age-friendly housing units. These include:

- inclusionary zoning;
- density bonusing;
- development levies;
- performance zoning; and
- modified development standards.

Inclusionary Zoning[23]

Inclusionary zoning is the most frequently cited regulatory tool used to support the creation of affordable housing. Inclusionary zoning refers to municipal zoning practices that require developers to provide a portion of newly-constructed housing units as affordable housing or cash-in-lieu of affordable housing. Local governments in British Columbia may implement housing programs that are *based* on inclusionary zoning principles, however, provincial legislation in BC does not provide express authority to implement mandatory inclusionary zoning programs. Local governments may offer incentives in the form of density bonuses, application fee waivers, tax deferrals, or fast-tracked approvals, or may enter into housing agreements with property owners to specify terms and conditions related to the occupancy of the housing units identified in the agreements. The resulting affordable units become part of a municipality-wide pool of affordable housing, which can only be rented or sold to qualified residents at affordable prices.

---

23 "Taking Action on Housing Affordability." Province of British Columbia. 2017. Accessed September 17, 2017. http://www2.gov.bc.ca/gov/content/housing-tenancy/local-governments/taking-action-on-housing-affordability/zoning

Advantages

- Inclusionary zoning has been proven to produce affordable housing units, particularly when applied on a mandatory basis.

- If inclusionary zoning contributions are aligned with requirements for accessible units, there is potential to increase the supply of housing that is both affordable and accessible.

- Inclusionary zoning is relatively inexpensive for municipalities to implement.

- By requiring a portion of every development over a certain size to have affordable units, municipalities are able to integrate affordable housing units across a wide spectrum of communities.

- Municipalities can tailor inclusionary zoning requirements to meet the housing objectives and targets that are set out in their Official Community Plans.

Challenges

- Local governments in British Columbia do not currently have the authority to implement mandatory inclusionary zoning programs and must rely on density bonusing and housing agreements to fulfill the objectives of an inclusionary zoning-based policy.

- The application of inclusionary zoning is often limited to large-scale, multi-unit residential developments.

- Mandatory participation may deter developers in slow-growth areas or may encourage them to build elsewhere. New inclusionary zoning units will not be created in jurisdictions where the market is not already strong.

- Density bonuses for voluntary participation are beneficial only in higher density and high-growth areas where land values are high and increased density is a significant asset.

- Mandatory inclusionary zoning is rarely supported by developers and builders and often faces significant opposition and legal challenges. Voluntary participation is more attractive to developers, but typically results in significantly lower compliance rates.

- Some argue that inclusionary zoning unfairly targets new developments, resulting in lower quality units or encouraging cash-in-lieu instead of construction of new units.

What is required for implementation?

- Mandatory inclusionary zoning requires provincial enabling legislation, which does not currently exist in British Columbia.

- Guidelines are required for determining how and where inclusionary zoning-based programs could apply through Official Community Plan policies and zoning by-laws.

- Guidelines are required for outlining a threshold size for residential or mixed-use development projects that would trigger the application of policies based on inclusionary zoning.

- Guidance for setting the percentage of total units in a residential development that are required to be accessible and/or affordable.

- Housing agreements between local governments and property owners, which may be registered against the land title, to ensure that subsequent owners keep the unit affordable.

- Guidelines and policies outlining incentives for builders, such as increased density or height, particularly if additional accessibility features are requested.

Density Bonusing[24]

Density bonusing is a tool that allows municipalities to exchange bonus density for the provision of certain amenities and features that benefit the overall community. A density bonus model is a voluntary mechanism through which developers may provide an amenity (for example affordable housing units or energy efficiency features), or a predetermined financial contribution to the municipality, in exchange for an increase in density or floor space. Should additional density or floor space not be desired, a developer has the right to develop to the permitted base density with no additional contributions required.

Advantages

- Density bonusing is most effective in denser urban areas or commercial districts, where public services can support additional residents and there is already a high market value for the land.

- Density bonusing can encourage the development of a substantial

24 Ibid.

number of affordable units, particularly when applied to larger mixed-use or multi-unit residential projects.

- Once established, density bonusing programs can allow municipalities to receive a number of affordable housing units from the private sector with minimal staff involvement or municipal investment.

- Density bonusing can be used to achieve Official Community Plan density targets by encouraging intensification in urban areas, walkable communities, and those communities that are well-serviced by public transit.

- Density bonusing holds significant potential to encourage the inclusion of accessibility features. As a voluntary program, municipalities have the ability to request specific accessibility features in return for added density, as defined by their approved policies.

Challenges

- Density bonusing is most effective where developers are interested in achieving higher densities, such as in commercial or urban centres, large multi-unit or mixed-use projects, or expanding markets.

- Implementation often requires extensive community consultation and may be challenged for giving too much density to developers in exchange for too little public benefit. This is a particular risk when developers offer financial or off-site contributions.

- Most municipalities offer density bonusing for affordable housing and may be reluctant to add accessibility requirements for fear of decreased uptake. This concern can be addressed by requiring that affordability targets be met first, and then allowing additional density (up to a defined maximum) for accessibility.

- Ad-hoc implementation - implementation on a case-by-case basis rather than implementation across the board according to a program or policy - often results in increased opposition.

What is required for implementation

- Density bonusing by municipalities requires provincial enabling legislation, which currently exists in British Columbia.

- Policies, procedures, and regulations must be in place to clearly define density bonusing contributions.

- Provisions for inclusive or supportive design may be incorporated into the zoning bylaw. Used in conjunction with a development permit application in a conventional zone, these provisions would allow developers to receive a density bonus on new developments that meet inclusive or supportive design requirements, as outlined in the zoning bylaw[25].

Development Levies[26]

Development levies, including exactions, reverse exactions, and linkage fees, are tools that allow fees to be levied on developments to facilitate the provision of affordable housing. Development levies may be applied to both residential and non-residential developments and are often referred to as "exactions." When waived or adjusted in exchange for affordable housing, they are referred to as "reverse exactions." "Linkage fees," are development levies that are linked to employment-generating uses and are calculated based on the demand for affordable housing that a commercial development will create in the future. As a condition of development approval, development levies are paid by developers into a municipal fund that is dedicated to building and supporting affordable housing in the community. Most local governments give the developer the option of building affordable housing themselves in lieu of paying the fees.

Advantages

- Development levies are generally paid into a municipally-managed fund. When investing in new affordable housing, municipalities are able to require higher levels of accessibility, provided any additional costs can be justified through cost savings elsewhere.

- Linkage fees create needed revenues, in a limited amount of time, for the creation and rehabilitation of affordable housing, which benefits residents of all ages.

- Waiving or adjusting development levies in exchange for affordable or accessible housing allows the developer to reduce and recover costs and profit loss from compliance.

25 City of Edmonton. "Section 93: Inclusive Design." *Edmonton Zoning Bylaw 12800.* August 27, 2012. Accessed October 2, 2017. www.webdocs.edmonton.ca/zoningbylaw/ZoningBylaw/Part1/Special_Land/93._Inclusive_Design.htm

26 "Using Development Levies." Canada Mortgage and Housing Corporation. 2017. Accessed September 6, 2017. https://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce/afhostcast/afhoid/pore/usdele/usdele_001.cfm

- Development levies can encourage smaller, intrinsically more affordable, residential developments. If designed in an accessible manner, these units could be ideal for seniors.

Challenges

- Development levies may raise base housing prices as developers attempt to recuperate their costs.

- Linkage fees on new commercial developments might be justified to offset the adverse impact of new commercial and other developments on local affordable housing conditions, however, it is unlikely that they could be directly allocated toward the creation of units that are purpose-built for seniors. Instead, these levies are best positioned as a tool to increase the total amount of affordable and, in some cases, accessible, housing stock available to all residents, including seniors.

- Even with legislation, such as that in place in BC, charging large development levies makes it more likely a developer will challenge a municipality in court or look elsewhere to develop.

- There is currently no precedent for using linkage fees or development levies to fund developer-built accessibility features.

- Development levies are most effective in urban centres that are experiencing sustained growth. They may not be practical during economic downturns, in rural communities, or in areas with little pressure for densification.

- Municipalities instituting development levies must be knowledgeable about the real estate market and be prepared to continually evaluate, amend, and suspend development levies if they begin to have a negative impact on the overall local economy.

- Municipal governments are often reluctant to waive or adjust development fees and levies due to their own financial obligations.

What is required for implementation?

- Provincial legislation is currently in place to allow development levies and linkage fees.

- Municipal policies, procedures, and regulations must be in place to guide the conditions, amounts, and exemptions of development levies and linkage fees.

Performance Zoning

Performance zoning is an alternative zoning practice that regulates the design and location of land use based on the characteristics of a particular site and its ability to support development. Municipalities using this approach replace conventional zoning with performance criteria to increase the range of uses, building types, and carrying capacity of a site. In Canada, there is no comprehensive performance based planning system currently in place, however, a number of Canadian municipalities have adopted some of the key principles of performance based planning, particularly in areas of high environmental sensitivity.

Advantages

- Performance zoning is most effective in suburban, brownfield, and rural areas. It is also effective in transitional areas where redevelopment has been stalled by conventional zoning practices.

- Performance zoning allows municipalities to leverage existing infrastructure, protect the natural environment, and encourage land use decisions that are based on a site's suitability for development.

- Performance zoning can encourage the creation of affordable housing through opportunities for increased density, mixed-use development, and design innovation.

- Performance zoning holds significant promise in the creation of mixed-use, multigenerational communities.

Challenges

- It is a considerable undertaking for a municipality to alter their municipal policies and regulations to eliminate zoning districts and replace them with performance-based standards.

- Managing, evaluating, and revising performance zoning requires more technical expertise, staff time, and administrative costs than conventional zoning.

- Local residents may be resistant to new developments in their community, particularly if they differ in use or character from other developments in the area.

- A municipality must determine the criteria to be used for performance zoning, including floor space ratios, maximum impervious surface

ratios, access to transportation, and capacity of public infrastructure.

- Performance zoning is less effective when applied to small parcels or to minor land development proposals. Relief clauses may need to be created to allow developers to opt-out of a performance approach when building at a lower density.

What is required for implementation?

- Depending on the desired application, performance zoning may require provincial legislative changes.

- Performance zoning would require a complete alteration of a municipality's land use policies and regulations. As a result, performance zoning may be appropriate only in designated areas with high environmental or contextual sensitivity.

- Many municipalities using a performance zoning system introduce development charges in order to help finance the off-site capital costs associated with community growth. British Columbia currently has legislation in place empowering municipalities to adopt development charge bylaws.

Modified Development Standards[27]

Development standards are the rules that municipalities use to guide the planning, design, and construction of communities, including lot sizes, frontage configurations, right-of-way widths, parking, and the location of utility infrastructure. Modified development standards, also referred to as alternative development standards, are flexible and innovative standards that provide a range of alternatives to the current regulations. Modified development standards can be divided into one of two main categories: modified planning standards and modified engineering standards. Planning standards can include reductions to setbacks, narrowed lot sizes, or alternative density configurations, while engineering standards include combined utility trenches, reconfigured on-street parking, or reduced road allowances. In either case, the modified development standards are intended to replace traditional standards to allow innovative development, without compromising public safety. Modified development standards may be used

---

27 Canada Mortgage and Housing Corporation. "Modifying Development Standards." 2017. Accessed September 22, 2017. https://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce/afhostcast/afhoid/pore/modest/index.cfm

in conjunction with overlays in order to allow alternative development configurations in specific areas. Used to respond to specific, local conditions, modified development standards may support more intense use of land, sensitive infill, and innovative design development in both new and existing communities.

Advantages

- Modified development standards are most effective on sites with unusual dimensions, where conventional standards are not easily applied.

- Modified development standards are an effective means for regulating infill development in order to ensure that new buildings are sensitive to the existing context.

- Modified development standards can be applied to individual lots or scaled to include subdivisions or entire communities.

- Modified development standards can result in increased housing affordability, achieved by more intense use of land, reduced service costs, and reduced infrastructure costs.

- Modified development standards can support age-friendliness by allowing innovative design and land use proposals that encourage a greater variety of housing types. Furthermore, these standards can help overcome supply constraints due to minimum lot size standards and atypical lot configurations.

Challenges

- Municipalities must develop, maintain, and administer policies and guidelines around the use of modified development standards if they hope to leverage this tool for affordability or accessibility.

- Municipalities must undertake technical research to evaluate innovative proposals regarding new materials, alternative construction approaches, and changes in construction technology.

- Modified development standards can cause secondary issues as lot sizes are reduced, such as garage placement, shadowing, and oversight into neighbouring properties.

- Modified development standards do not necessarily guarantee that cost savings will be passed on to the consumer.

- Municipal building and engineering departments tend to be risk averse and are likely to relax regulations only when there is clear evidence that doing so will provide public benefits without increasing risk.

- Modifying development standards often involves consultation with a range of participants, including elected officials, planners, architects, engineers, environmental professionals, parks staff, emergency service providers, developers, contractors, and the general public. Not all groups will have the same level of understanding or acceptance of modified standards and consultation may result in conflict, delays, and resistance.

- When modified development standards are first proposed, lengthy evaluations and negotiations during the development application process may increase costs to both the municipality and developer as a result of prolonged timelines for approvals.

What is required for implementation?

- Changes to both planning policies and zoning bylaws would be required in many municipalities to permit narrower lot frontages, reduced front or side yard setbacks, or altered housing configurations in existing communities.

- Municipalities must have professional and technical staff that is willing to work with developers to ensure that modified development standards provide a significant public benefit without compromising safety.

BRITISH COLUMBIA BUILDING CODE

The *British Columbia Building Code* is an important tool for regulating development at the building scale. Governed by the *Building Act*, all local authorities in BC must refer to provincial building regulations in order to set and enforce technical building requirements[28]. These regulations are intended to provide a minimum standard for development in terms of health, safety, fire and structural protection, accessibility, and energy and water efficiency. The *British Columbia Building Code* is based on the *National Building Code* and is generally updated every five years.

---

28 The *Building Act* does not apply in the City of Vancouver, which is governed by the *Vancouver Charter*. Vancouver has the authority to set its own building requirements through its municipal bylaws.

The *British Columbia Building Code* regulates building in two main categories: simple (Part 9) buildings and complex (Part 3) buildings[29]. Technical building requirements for each type of building are based on the differences in their size and use.

| PART 3 BUILDINGS (COMPLEX)	PART 9 BUILDINGS (SIMPLE)
Size	**Size**
All buildings over three storeys in height or over 600 square metres in footprint. Some buildings three storeys or less in height, or under 600 square metres in area, that are of a specific use.	Most buildings three storeys and under in height and with a footprint of 600 square metres or less.
Description	**Description**
Buildings intended for public gatherings, residential care, detention, or high-hazard industrial activities. Some larger buildings intended for residential, commercial, or medium-to-low hazard industrial activities.	Small buildings intended for residential, commercial, or medium-to-low hazard industrial activities.
Examples	**Examples**
Shopping malls Daycares Office buildings Schools Condos Churches Apartment buildings Theatres Hospitals Restaurants Care facilities	Houses Duplexes Small apartment buildings (under three storeys) Small commercial buildings with stores or offices Small industrial shops

FIG. 7.2

MAIN TYPES OF BUILDINGS regulated by building code

29 Government of British Columbia. *Understanding B.C.'s Building Regulatory System. Building Act Guide Series: Section A1. Office of Housing and Construction Standards. July 2015.* Accessed September 26, 2017. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/buildingactguide_sectiona1_june2015_web.pdf p.5

In instances where local governments deem it necessary to set their own technical building requirements which differ from, or exceed, provincial building regulations, they have three options for doing so[30].

Option 1: Set Technical Building Requirements for Unrestricted Matters

Under section 5(4) of the *Building Act*, local governments have the authority to address local needs by setting technical building requirements through the creation and administration of bylaws for a limited number of matters that the Province identifies as unrestricted. Unrestricted matters that are relevant to age-friendly housing include[31]:

- Parking spaces for use by persons with disabilities.
- Form, exterior design, and finish of buildings and other structures, as they relate to the character of the development, in a development permit area established for one of the following purposes:
  - ➢ Revitalization of an area in which commercial use is permitted;
  - ➢ Establishment of objectives for the form and character of intensive residential development; and/or
  - ➢ Establishment of objectives for the form and character of commercial, industrial, or multi-family residential development.

Option 2: Request a Local Government Variation[33]

In instances where provincial building code requirements do not fully address local needs, Section 7 of the *Building Act* provides local authorities

---

30 Government of British Columbia. *What Local Governments Need to Know about the Building Act. Building Act Guide Series: Section B1.* Office of Housing and Construction Standards. June 2016. Accessed September 28, 2017. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/baguide_sectionb1_june2016.pdf

31 Technical building requirements for adaptable units are currently listed as "unrestricted matters with time limitations." This means that they are temporarily unrestricted, provided that the bylaw specifying the technical building requirements is enacted on or before December 15, 2017 and is not amended after that date. After December 2017, municipal bylaws for adaptable units must comply with the *BC Building Code*. For more information, refer to: Government of British Columbia. "Building Act: Consistency." April 11, 2017. Accessed September 12, 2017. http://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/building-act/consistency

32 City of Vancouver. "Vancouver Building Bylaw 10908." 2017. Accessed October 30, 2017. http://vancouver.ca/your-government/vancouver-building-bylaw.aspx

33 Government of British Columbia. *A Guide to Requesting a Local Authority Variation: Section C1 of the Building Act Guide.* Office of Housing and Construction Standards. October 2016. Accessed September 25, 2017. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/baguide_sectionc1_oct2016.pdf

VANCOUVER CHARTER

The *Vancouver Charter* gives the City of Vancouver the authority to develop and adopt its own bylaws in order to regulate technical building requirements that are normally governed by the *British Columbia Building Code*. This ability allows City Council to quickly respond to local issues that impact building safety. The ability to tailor building regulations to local requirements has enabled the City of Vancouver to become a national leader with respect to building accessibility, live/work accommodations, and energy efficiency.

Developed in consultation with industry professionals, the *Vancouver Building Bylaw*[32] includes amendments to the *British Columbia Building Code* that are intended to improve housing for seniors and people with disabilities, while supporting the objectives of the *Greenest City 2020 Action Plan*.

Adopted in 2014, the *Vancouver Building Bylaw* regulates the design and construction of buildings and structures in Vancouver by providing additional requirements and revisions to the *British Columbia Building Code*. The bylaw also outlines any administrative provisions related to permitting, inspections, and the enforcement of these requirements.

The adaptability and accessibility requirements for residential developments that are included in the *Vancouver Building Bylaw* provide precedent for a local government variation of, or a change to, the *British Columbia Building Code* to support age-friendly residential developments across the province.

with the option of applying for a variation. If a group of local governments has similar needs, they are encouraged to apply together. If approved by the Minister, the variation is enacted though a provincial building regulation and will apply in the jurisdiction(s) of the local government(s) making the request.

Local governments will need to demonstrate a compelling reason why a variation is needed when they submit their request. This includes:

1. The technical building requirement, including:
   - The proposed technical language that can be applied and enforced in the local jurisdiction;
   - Proposed language outlining the technical requirement's application and administrative provisions; and
   - Reference to the source of the requirement's language, for example, an existing building requirement in another jurisdiction.

2. The specific, local need, including:
   - The specific circumstance or condition that requires a variation from existing provincial building regulations;
   - The objective of the proposed variation and how it addresses local needs; and
   - The historic need, as well as social, economic, or environmental considerations that led to the proposed variation.

3. The technical feasibility of the variation, including:
   - The building science behind the proposed variation and how it has been tested; and
   - Evidence that the proposed variation meets a specific, local need and why it is a feasible option.

4. A cost-benefit and affordability analysis, including:
   - The benefits of implementing the proposed variation and how the benefits outweigh potential costs (e.g., costs associated with construction, maintenance, and operation of the building);
   - Economic or other impacts of the proposed variation, including housing affordability, insurance, and infrastructure costs;
   - A risk analysis outlining any impacts if the proposed variation is not approved; and

- Impacts if the proposed variation is approved, for example, impact on design professionals, developers, builders, homeowners, and building owners.

5. Stakeholder engagement, where applicable, including:

- Details about stakeholder consultations for the proposed variation. Stakeholders may include design professionals, developers, builders, neighbourhood associations, and other local authorities.

Option 3: Request a Change to the *British Columbia Building Code*

If a local government feels that a proposed variation is broadly applicable to many other jurisdictions across the province, the local government may wish to consider requesting a change to the *British Columbia Building Code*. Both individuals and local governments can request either minor or major changes to the building code. Minor changes can include corrections or editorial changes that bring clarity to a particular section of the code. Major changes have a greater impact or technical application, such as a request to accept the use of a new building material, standard, or technique. A request for a change to the building code is most appropriate if the recommendation has widespread applicability across the province. A need that is specific to one jurisdiction, or to a limited number of jurisdictions, should be pursued through Options 1 or 2.

RECOMMENDATIONS

Policy and regulation must work together to allow a local government to effectively advance its policy objectives. In order to align age-friendly regulations with municipal policies, a number of key regulatory activities are recommended.

1. Scrutinize existing and proposed zoning bylaws for exclusion of age-friendly features, in terms of accessibility, walkability, access to public transportation, housing diversity, and affordability.

2. Undertake a comprehensive review of the zoning bylaw to identify opportunities to integrate regulations and incentives which support age-friendly communities, including density bonusing or

contribution programs, performance zoning, modified development standards, and reductions to development fees in key locations[34].

3. Incorporate Canadian Standards Association (CSA) accessibility standards for residential developments into applicable projects where accessibility guidance is not provided by the building code.

4. Leverage opportunities to set technical building requirements for unrestricted matters. For example, including accessibility features when establishing objectives for the form and character of areas of intensive residential development, as outlined in the *Building Act*[35].

5. Explore opportunities for collaboration with other local governments to apply for either a local government variation or a change to the *BC Building Code* to reflect visitability and accessibility features in residential development. Technical and language precedent for this application can be found in the Province of British Columbia's *Accessibility 2024 Action Plan* and in the Canadian Standards Association residential accessibility standards.

---

34 BC Climate Action Toolkit. "Diverse Zoning Strategies for Diverse Communities." Accessed August 22, 2017. http://www.toolkit.bc.ca/diverse-zoning-strategies-diverse-communities#housing%20strategies

35 Government of British Columbia. "Building Act: Consistency." April 11, 2017. Accessed September 12, 2017. http://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/building-act/consistency

PART III: DESIGNING AN AGE-FRIENDLY COMMUNITY

Local governments have a responsibility to their citizens to create and support environments that provide the greatest benefit to the greatest number of residents. Aging is a universal experience and age-friendly communities benefit people of all generations, therefore investment in age-friendly community and building design is not solely related to elder care; it is an investment that will help attract, support, and retain residents at all stages of their lives.

8   AGE-FRIENDLY COMMUNITIES

Community development activities typically occur in one of two ways: through greenfield development or through infill development. Due to the mature nature of many of Vancouver Island's communities, as well as restrictions preventing further sprawl into agricultural land, the focus of this toolkit is on infill and redevelopment activities within existing communities. These mature neighbourhoods provide an optimal scale for the implementation of age-friendly strategies; they are generally defined by both culture and form, are often socially heterogeneous, and can serve as relatively independent economic units for monitoring and assessment. By incrementally changing elements of buildings, site designs, and community networks, we are able to detail our communities so that, over time, a fully-integrated, age-friendly environment becomes the norm. Incrementally nudging our existing communities toward a more inclusive, diverse, and compact settlement pattern allows local governments to respond to the changing physical, cognitive, social, and emotional needs of an aging population. This toolkit provides local governments with a number of general rules of thumb, which offer guidance for the introduction of a variety

NUMBER OF RESIDENTS NEEDED TO SUPPORT SERVICES OR RETAIL ESTABLISHMENTS[36]

Bus	0.5 – 1.2 buses per 1000 population **Bus service can generally be justified with a residential density of at least 25 units per hectare. Frequent bus service can be supported with a mix of low-rise apartments, townhouses, and small-lot single-detached residential developments[37].
Restaurant/Café	1 restaurant per 212 population
Bar	1 bar per 224 population
Grocery Store	1 grocery store per 702 population
Hardware Store	1 hardware store per 1,167 population
Lumber Store	1 lumber and building materials store per 1,020 population
Pharmacy	1 pharmacy per 1,022 population
Florist	1 florist per 1,287 population
Convenience/Variety Store	1 variety store per 2,324 population
Gas and Service Station	1 gas and service station per 605 population
Clothing Store	1 clothing store per 1,928 population

of housing typologies, neighbourhood-based retail, and service elements that can be integrated into a variety of community types.

BUILDING TYPOLOGIES BY USER GROUP

To support an age-friendly community, we must first understand the needs and requirements of a variety of user groups. Once the needs and capabilities of each group are understood, it is possible to view community design through an age-friendly lens, which influences land use, proximity, amenity, and character. This section provides an overview of housing typologies, community types, and optimal proximities, organized by user group. It also provides references to a number of case studies, which can be found in Appendix A.


Infill   Detached   The Plexes   Low-rise Multi-unit   Mid-rise Multi-unit   Mixed-use Commercial Residential

Rural

Rural Townships

Suburban

Urban
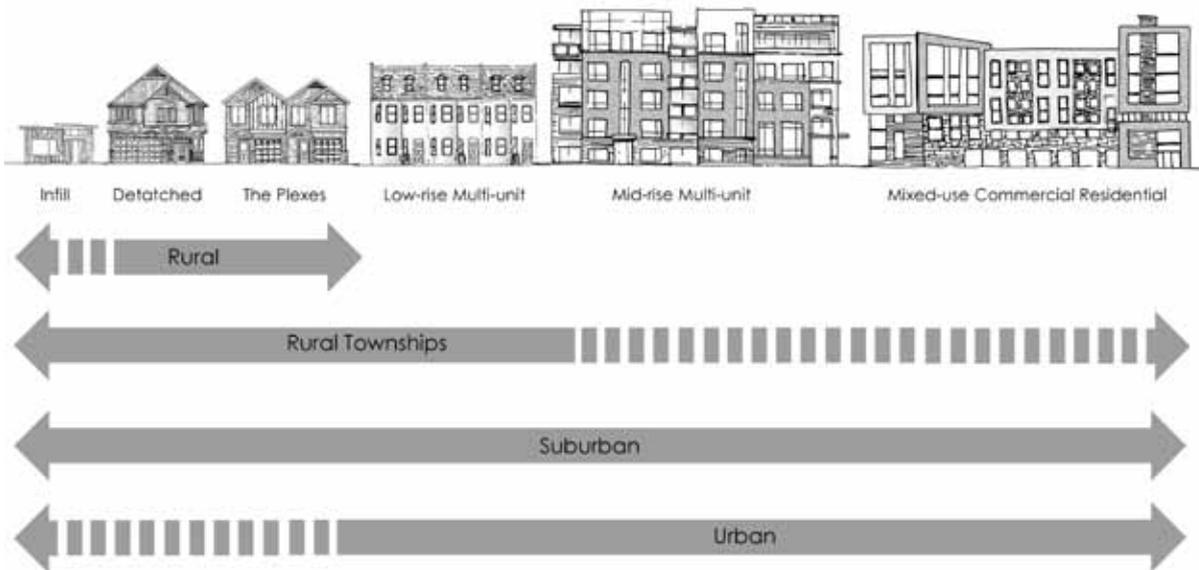
FIG. 8.1
RESIDENTIAL BUILDING TYPOLOGIES

---

36 Coon, Randal C., and F. Larry Leistritz. "Threshold Population Levels for Rural Retail Businesses in North Dakota." 2000. Accessed June 6, 2017. http://ageconsearch.umn.edu/bitstream/23518/1/aem191.pdf, and

Retail Council of Canada. "The Structure of Retail in Canada: Statistical Appendix." Report. 2013. Accessed June 6, 2017. https://www.retailcouncil.org/sites/default/files/documents/the-structure-of-retail-in-canada-statistical-appendix-2013.pdf

37 World Bank Group: Urban Bus Toolkit. "Number of Buses per 1,000 People." 2006. Accessed September 26, 2017. https://ppiaf.org/sites/ppiaf.org/files/documents/toolkits/UrbanBusToolkit/assets/1/1c/1c7.html

BUILDING TYPOLOGY BY TYPE OF COMMUNITY

Building Typology	Urban	Suburban	Rural Township	Rural
Single Detached	○	●	●	●
Duplex	●	●	●	●
Triplex/Fourplex	●	●	●	○
Row Houses	●	●	●	
Townhouses	●	●	●	
Carriage Houses	●	●	●	○
Garden Suites	●	●	●	○
Secondary Suites (in-home)	●	●	●	○
Granny Flats	●	●	●	○
Condominiums	●	●	●	
Low-rise Apartment Buildings	●	●	●	
Mixed-use Commercial-Residential Buildings	●	●	●	
Co-operative Housing	●	●	●	●
Cohousing	●	●	●	●
Communal Housing	●	●	●	●
Multigenerational Communities	●	●	●	●
Mid-rise Multi-unit Buildings	●	●		

FIG. 8.2
BUILDING TYPOLOGIES BY TYPE OF COMMUNITY

CASE STUDIES BY USER GROUP

Case Studies	Families	Active Adult	Independent Living (Minor Support)	Supportive Living (Home-based care)	Assisted Living
Humanitas				●	●
ECHO House				●	
Visitable Home	●	●	●	●	
FlexHome	●	●	●	●	
Babayaga House			●	●	
Senior Cohousing		●	●	●	
Co-operative Living	●	●	●		
Home within a Home/In-law Suite	●	●	●	●	
Intergenerational Community	●	●	●	●	
Infill Housing	●	●	●	●	
Microtransit	●	●	●	●	●
Village Network		●	●	●	

FIG. 8.3
CASE STUDIES BY USER GROUP

Families and Active Adults

Description

Housing for families and active adults includes any form of general market housing. Age-friendly dwellings may incorporate visitability and adaptability features, including single-level living, flexible floor plans, and access to a main-floor bathroom.

Building typologies

Single detached houses, duplexes, multiplexes, row houses, townhouses, carriage houses, garden suites, secondary suites (in-home), granny flats, infill housing, apartments, condominiums, co-operative housing, cohousing, communal housing

Community Type

Urban, Suburban, Rural Township, Rural

Typical Density

Urban: 40-150+ units/ha; Suburban: 28-150 units/ha; Rural Township: 2-40 units/ha; Rural: 1-6 units/ha

End Users

Families wishing to remain in their homes after adult children have left; active adults who may begin to face mobility issues in the future

Relevant Case Studies

Visitable Home, FlexHome, Senior Cohousing, Co-operative Living, Home within a Home (in-law suite), Intergenerational Community, Infill Housing, Microtransit, Village Network

OPTIMAL PROXIMITIES

Amenity Type	Close Walking Distance (400 m or less)	Moderate Walking Distance (400–800 m)	On Transit Route
Home Healthcare Outpost			•
Medical Clinic			•
Pharmacy		•	•
Convenience Store	•	•	•
Grocery Store		•	•
Restaurant/ Café		•	•
Bar			•
Hardware Store			•
Transit Stop	•	•	
Senior/ Recreation Centre			•
Park	•	•	
Religious Institution			•
Bank			•
Library		•	•
Post Office		•	•

Independent Seniors (with or without minor support)

Description

Similar to housing for families and active adults, housing for independent seniors (with or without minor support) varies little from general market stock. Dwellings should have a significant emphasis on visitable and adaptable housing units. Functional limitations that arise for independent seniors, including minor physical limitations and minor cognitive impairments, can be overcome through hiring service providers for cleaning, maintenance, and personal services. Seniors in rural communities may begin to experience difficulties independently accessing services.

Building Typologies

Single detached houses, duplexes, multiplexes, row houses, townhouses, carriage houses, garden suites, secondary suites (in-home), granny flats, infill housing, apartments, condominiums, co-operative housing, cohousing, communal housing

Community Type

Urban, Suburban, Rural Township, Rural

Typical Density

Urban: 40-150+ units/ha; Suburban: 28-150 units/ha; Rural Township: 2-40 units/ha; Rural: 1-6 units/ha

End Users

Older adults and independent seniors who may be facing emerging cognitive and mobility issues

Relevant Case Studies

Visitable Home, FlexHome, Senior Cohousing, Co-operative Living, Home within a Home (in-law suite), Babayaga House, Intergenerational Community, Infill Housing, Microtransit, Village Network

OPTIMAL PROXIMITIES

Amenity Type	Close Walking Distance (400 m or less)	Moderate Walking Distance (400-800 m)	On Transit Route
Home Healthcare Outpost			●
Medical Clinic		●	●
Pharmacy	●	●	
Convenience Store	●	●	
Grocery Store		●	●
Restaurant/ Café		●	●
Bar		●	●
Hardware Store			●
Transit stop	●		
Senior/ Recreation Centre		●	●
Park	●	●	
Religious Institution		●	●
Bank		●	●
Library	●	●	
Post Office		●	

Supportive Living (live-in caretaker or higher levels of daily, home-based care)

Description

Housing appropriate for supportive living will include detached houses with in-law, garden, or other secondary suites, medically-equipped cottages, apartments and condominiums. Multi-storey buildings must have elevators. Ideally, units that support assisted living and home-based care will be adjacent to amenities and services. Seniors in rural communities will experience significant difficulties independently accessing services and will require greater levels of care to meet their daily needs.

Building Typologies

Detached houses, duplexes, multiplexes, row houses, townhouses, garden suites, secondary suites (in-home), granny flats, infill housing, apartments, and condominiums close to a service centre or urban core, cohousing, communal housing

Community Type

Urban, Suburban, Rural Township

Typical Density

Urban: 40-150+ units/ha; Suburban: 28-150 units/ha; Rural Township: 2-40 units/ha

End Users

Seniors who are facing cognitive and mobility issues, requiring higher levels of daily, home-based care. Caretakers may live with the senior or visit on a semi-daily basis.

Relevant Case Studies

Humanitas, ECHO House, Visitable Home, FlexHome, Home within a Home (in-law suite), Babayaga House, Senior Cohousing, Intergenerational Community, Infill Housing, Microtransit, Village Network

OPTIMAL PROXIMITIES

Amenity type	Close Walking Distance (400 m or less)	Moderate Walking Distance (400-800 m)	On Transit Route
Home Healthcare Outpost	•	•	
Medical Clinic	•	•	
Pharmacy	•		
Convenience Store	•		
Grocery Store	•	•	
Restaurant/Café	•		
Bar	•	•	
Hardware Store		•	•
Transit stop	•		
Senior/Recreation Centre	•		
Park	•		
Religious Institution	•	•	
Bank	•	•	
Library	•	•	
Post Office	•	•	

Assisted Living

Description

Housing appropriate for seniors with significant physical and/or cognitive limitations. Staff is generally present twenty-four hours per day. Supportive housing is generally designed as small, single-room accommodations within an apartment-style building. Small, neighbourhood-compatible developments are becoming more prevalent.

Building Typologies

Apartment-style buildings and complexes with or without medical facilities. Located close to a service centre or urban core.

Community Type

Urban, Suburban

Typical Density

Urban: 40-150+ units/ha; Suburban: 28-150 units/ha

End Users

Seniors who are facing cognitive and mobility issues, requiring daily assistance with medications, mobility, bathing, and personal care. This category may include nursing care for seniors who require twenty-four hour care.

Relevant Case Studies

Humanitas, Microtransit

OPTIMAL PROXIMITIES

Amenity type	Close Walking Distance (400 m or less)	Moderate Walking Distance (400-800 m)	On Transit Route
Home Healthcare Outpost	•		
Medical Clinic	•		
Pharmacy	•		
Convenience Store	•		
Grocery Store			
Restaurant/ Café	•		
Bar	•	•	
Hardware Store			
Transit stop	•		
Senior/ Recreation Centre	•		
Park	•		
Religious Institution	•		
Bank	•	•	
Library	•	•	
Post Office	•	•	

9   AGE-FRIENDLY HOUSING

Age-friendly dwellings accommodate both the initial and future occupants of a unit, acknowledging that a resident's needs can, and likely will, change over time. Age-friendly housing design incorporates a range of accessibility features, which support use by seniors, children, and people with temporary or permanent disabilities. Accessible design presumes that a solution which meets the requirements of a broad range of people, with a variety of needs and abilities, is more desirable and less stigmatizing than multiple solutions for numerous subpopulations.

In many municipalities, multi-unit developments are required to include a minimum number of adaptable units, generally around 20%, in accordance with local zoning bylaws. While this percentage may align with the overall proportion of the population living with disabilities, there is no way to guarantee that these units will be available to seniors and others with increased accessibility requirements at the time when they are needed. There is currently no requirement in Canada for low density dwellings, such as single detached houses or duplexes, to meet the accessibility standards for complex buildings that are outlined in the *British Columbia Building Code* and, as a result, accessible housing is generally built by and for residents with disabilities on an individual basis[38].

Age-friendly housing includes dwellings that are visitable, those which can easily and affordably be modified to be accessible at a later date, and those which are completely accessible from the outset. In new construction, visitability, adaptability, and accessibility features may be incorporated into the initial building and site design so that additional accommodations and modifications do not need to be made at a later date. For example, site grading can often be designed to facilitate a no-step entry and eliminate the future need for a ramp, blocking can be installed into walls so that grab bars can be readily and inexpensively installed at a later date, and doorways and circulation spaces can be widened to allow for wheelchair access in the future. If considered early, these features can be fully incorporated into the design of the dwelling, often at a nominal price, as opposed to being addressed through expensive and often unattractive modifications when access becomes an issue for the resident.

---

38 If an owner or developer chooses to voluntarily meet accessibility standards, the "Building Requirements for Persons with Disabilities," as outlined in Section 3.8 of the *BC Building Code,* should be applied. For additional accessibility guidance, the Canadian Standards Association *Access Standards for the Built Environment* may be referenced.

DEGREES AND COSTS OF ACCESSIBILITY

Visitable Homes

© istockphoto.com/hikesterson

FIG. 9.1
VISITABLE HOME WITH A NO-STEP ENTRANCE

Visitability emerged as a simplified method for incorporating accessible design principles into newly-built homes. Requiring only three key elements, a no-step entry, widened doorways, and a washroom on the ground floor, visitability is a response to the development of inaccessible, single-generation homes and the inability of local governments to enforce accessibility requirements in private dwellings. By demonstrating that visitability principles can be incorporated into newly-built homes at little or no cost to the owner or builder, advocates have been able to persuade a number of local governments, developers, and home buyers to support the construction of homes that are accessible to people of all ages and abilities. In the United States, precedent exists for mandatory compliance with visitability requirements, however, in Canada, compliance is most often voluntary.

The following table compares the cost of constructing a new, visitable home to the cost of renovating or modifying an existing home to meet visitability standards. The table assumes that site grading can be adjusted during design and construction and that a three-piece washroom is included on the main floor in the initial design of most new homes. For further detail regarding the modifications and costs associated with constructing or renovating a visitable, adaptable, or accessible home, please refer to Appendix E: Cost Breakdown for Housing Accessibility.

FIG. 9.2
COST OF
VISITABILITY

VISITABLE HOUSING
Based on the District of Saanich Voluntary Guidelines

Assumptions
Single Detached, 2 Storey Residence without Basement
Benchmark House: 186 sqm (2,000 sqft)
Benchmark Construction Cost: $372,000

Guideline	Cost for New Construction	Cost for Renovation
At least one no-step entrance. Grade site during initial construction or regrade during renovation.	-	$5,000
Minimum 860 mm clear opening for all main floor doorways.	$250	$3,500
Three piece bathroom on main floor (included in original design)	-	-
Cost of Visitable Housing	**$250**	**$8,500**

Adaptable Homes

Adaptable homes incorporate design modifications that make the dwelling relatively easy and inexpensive to modify should a resident's needs change in the future. Major structural considerations are accommodated from the outset, including at-grade access, wider doors and hallways, maneuvering space in the kitchen, laundry room, and living areas, and an accessible washroom on the main floor. Additional features may include a "flex" room on the main floor of a single detached dwelling, or the inclusion of a secondary

suite[39] for use by an adult child, aging parent, tenant, future caretaker, or the owner as their needs change. By planning for future modifications and incorporating basic accessibility features at the construction stage, the home is easier to adapt, access, live, and work in, even if mobility or functional limitations are not currently an issue. The home is more inviting to friends and family who may face accessibility challenges and is marketable to a wider demographic of buyers or renters when ownership or tenancy changes.

© istockphoto.com/Peopleimages

FIG. 9.3
ADAPTABLE
H O M E

The following table compares the cost of constructing a new, adaptable home to the cost of renovating an existing home to meet adaptability standards. The table assumes that room sizes and floor plan configurations can be adjusted during design and that renovation costs are based on costs for modifying typical room sizes to provide the additional square footage required to accommodate future wheelchair accessibility. This table has been simplified for illustrative purposes, however, a full cost breakdown for adaptable housing can be found in Appendix E: Cost Breakdown for Housing Accessibility.

39 Secondary suites must be compliant with all local building regulations, including local zoning bylaws, as well as with the "Secondary Suites Provision" as outlined in Section 9.36 of the *British Columbia Building Code*.

ADAPTABLE HOUSING
Based on the District of Saanich Voluntary Guidelines

Assumptions
Single Detached, 2 Storey Residence without Basement
Benchmark House: 186 sqm (2,000 sqft)
Benchmark Construction Cost: $372,000

Guideline	Cost for New Construction	Cost for Renovation
At least one no-step entrance. Grade site during construction or regrade during renovation.	-	$5,000
Add overhang at front entrance.	$5,000	$5,000
Ensure kitchen and at least one bedroom allow a turn radius of 1,500 mm: add 5 sqm of area.	$8,000	$10,000
Minimum 860 mm clear opening for all doorways.	$500	$7,000
Lever-type door hardware.	$500	$1,000
Accessible bathroom on the main floor. Adjust floor plan to allow 1,500 mm turn radius.	-	$4,800
Blocking for grab bars installed in bathrooms.	$200	$500
A room that can be used as a bedroom is included or retrofitted on the main floor.	-	$14,400
Stack storage spaces for future elevator access.	-	$3,600
Cost of Adaptable Housing	**$14,200**	**$51,300**

FIG. 9.4
COST OF
ADAPTABILITY

Accessible Homes

Accessible homes incorporate designs, products, and technologies that remove or overcome barriers for residents. When carefully considered, accessible design may eliminate the need for special features and modifications for people with mobility challenges, which can be stigmatizing, embarrassing, visually intrusive, and, often, expensive. Accessible design is inclusive design that, when done well, is invisible.

The *British Columbia Building Code* outlines accessibility requirements for multi-unit housing developments. However, lower-density housing typologies, including single detached houses, duplexes, multiplexes, row houses, and townhouses, are often exempt from these accessibility requirements. Accessibility standards for low density housing types are provided by the Canadian Standards Association (CSA)[40]. These standards provide nationally-accepted guidelines for accessibility in residential developments and can be used by local governments as guidelines for age-friendly and accessible housing design. CSA standards may provide language and technical precedent for a future request for a local government variation or change to the *British Columbia Building Code.*

© istockphoto.com/Onzeg

FIG. 9.5
ACCESSIBLE
WASHROOM

The following table compares the cost of constructing a new, accessible home to the cost of renovating an existing home to meet accessibility standards. The table assumes that room sizes and floor plan configurations can be adjusted during design and that renovation costs are based on costs for modifying typical room sizes to provide the additional square footage required for wheelchair accessibility. Hardware and material costs for new construction are based on a premium over and above those typically installed in a newly-constructed home. This table has been simplified for illustrative purposes, however, a full cost breakdown for accessible housing can be found in Appendix E: Cost Breakdown for Housing Accessibility.

40 Canadian Standards Association. *Accessible Design for the Built Environment.* B651-04. August 2004. Accessed August 22, 2017. https://sci-bc-database.ca/wp-content/uploads/Canadian-Standards-Association-Access-Standards-for-the-Built-Environment-2004.pdf

ACCESSIBLE HOUSING
Based on the District of Saanich Voluntary Guidelines

Assumptions
Single Detached, 2 Storey Residence without Basement
Benchmark House: 186 sqm (2,000 sqft)
Benchmark Construction Cost: $372,000

Guideline	Cost for New Construction	Cost for Renovation
At least one no-step entrance. Grade site during construction or regrade during renovation.	-	$5,000
Add overhang at front entrance.	$5,000	$5,000
Provide or replace standard path with a 1,500 mm wide path.	$324	$1,080
Ensure kitchen and at least one bedroom allow a turn radius of 1,500 mm: add 5 sqm of area.	$8,000	$10,000
Provide 1,500 mm wide corridors. Add area to initial floor plan or modify existing corridors.	$2,880	$8,280
Provide 1,500 mm turn radius at all entry doors.	$1,500	$2,500
Minimum 860 mm clear opening for all doorways.	$500	$10,000
Lever-type door hardware.	$500	$1,000
Include two door viewers at unit entry.	$50	$50
Install non-glare, slip resistant flooring or low-pile carpet in all rooms.	-	$7,850
Install or replace windows to be no more than 750 mm above floor with easily-operated window hardware.	-	$10,000
Install accessible faucets and hardware in kitchen.	-	$500
Install adjustable cabinet shelves, work boards, and a removable base under the sink.	$200	$2,300
Install task lighting.	$300	$600
Separate stove and oven.	$1,000	$3,000

FIG. 9.6
COST OF
ACCESSIBILITY

ACCESSIBLE HOUSING: CONTINUED

Guideline	Cost for New Construction	Cost for Renovation
Install rocker or paddle-type switches, with combination light switch and outlets at room entrances.	-	$2,200
Install phone jacks with duplex outlets in all bedrooms.	-	$600
Install three-way switches in bedrooms.	$60	$450
Wire visual alarm in living room and fire alarm in one bedroom.	$440	$700
Include one bedroom with a 1,500 mm turn radius and height-adjustable closet shelves.	-	$500
A room that can be used as a bedroom on the main floor.	-	$14,400
Accessible bathroom on the main floor. Adjust floor plan to allow 1,500 mm turn radius and outward-swinging or pocket door.	-	$5,000
Blocking for grab bars installed in bathrooms.	$200	$500
Install screw-top toilet and accessible faucets.	$50	$500
Offset plumbing for vanity to allow for vanity sink removal. Align mirror to backsplash.	-	$2,050
Include weather-protected patio with minimal threshold and 1,500 mm turn radius.	$1,200	$3,000
Include colour contrasting signage, doors, and trim.	-	$500
Cost of Accessible Housing	**$22,204**	**$97,560**

10   COMMUNITY DESIGN GUIDELINES

In 2007, the World Health Organization (WHO) compiled a *Checklist of Essential Features of Age-friendly Cities*[41], outlining those features a community should have to be considered age-friendly. This section posits a number of recommendations and design guidelines, organized around the WHO criteria for age-friendly communities.

LOCATING AND ACCESSING AGE-FRIENDLY COMMUNITIES

WHO CRITERIA: LOCATION AND ACCESS

All city areas and services are accessible by public transport, with good connections and well-marked routes and vehicles.

Outdoor safety is promoted by good street lighting, police patrols and community education.

Services are situated together and are accessible.

Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community.

Sufficient and affordable housing for frail and disabled older people, with appropriate services, is provided locally.

Parking and drop-off areas are safe, sufficient in number and conveniently located.

Health and social services are conveniently located and accessible by all means of transport.

Priority parking and drop-off spots for people with special needs are available and respected.

Residential care facilities and designated older people's housing are located close to services and the rest of the community.

Community emergency planning takes into account the vulnerabilities and capacities of older people.

---

41 World Health Organization. *Checklist of Essential Features of Age-friendly Cities.* 2007. Accessed May 2, 2017.
http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf

DESIGN GUIDELINES: LOCATION AND ACCESS

Key Objectives

Sites selected for age-friendly residential developments provide easy access to:

- accessible public transit services;
- local retail and services;
- public open spaces and parks; and
- medical facilities and/or healthcare outposts.

Entrances to residential, commercial, and community buildings are clear and easy to navigate.

Vehicle parking areas are safe, secure, well-lit, and convenient for all residents and visitors.

Pedestrian access and public transit are thought of as interrelated components of a continuous mobility network.

Age-friendly housing development incentives support and leverage existing infrastructure, amenities, public transit, and retail facilities.

A variety of housing types and tenures are located in each community.

Design Guidelines

Public transportation services, retail and service centres, and public parks should be located within 400-800 m of all residential developments.

Transit stops should be spaced 200-300 m apart in business districts and urban centres, with level access to a majority of shops and services. In hilly areas, areas where riders are likely to be carrying groceries or large or heavy items, and areas with higher numbers of seniors, more frequent transit stops should be provided. Transit stop spacing in rural areas should not exceed 400 m.

Seating and shelter from the elements should be provided at transit stops that serve communities with large senior populations.

DESIGN GUIDELINES: LOCATION AND ACCESS (CONTINUED)

Collector routes, micro-transit, or on-demand options should be considered to service rural communities, particularly where there are large numbers of seniors. Local governments should consider partnerships with local business associations to provide accessible transportation shuttles to service centres.

Where retail facilities are not available within close walking distance, such as in mature, low-density communities, small neighbourhood retail uses should be permitted.

Crime Prevention Through Environmental Design (CPTED) techniques should be applied in site design, landscaping, lighting, and parking design.

Car parking is located to provide a clear, direct and safe route to dwelling entrances. Visitor parking is provided in easily-identified, designated locations.

Designated parking for residents and visitors with disabilities should be located close to dwellings, retail entrances, and services. Accessible parking spots should be located adjacent to curb cuts, ramps, or driveways.
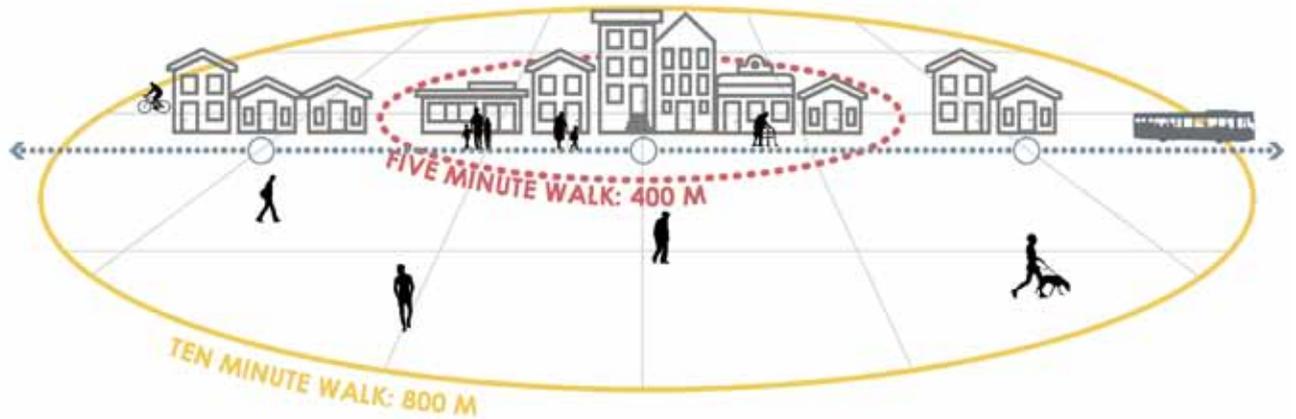
FIG 10.1 WHY 400 M?

A 400 m pedestrian shed is frequently used by planners and urban designers to describe the optimal walking distances within a community. But why is it 400 m? Why not 600 m? or 250 m?

An average adult is able to walk 400 m in approximately 5 minutes, therefore, by situating developments within a 400 m walking radius, services, amenities and other pedestrian facilities are located no more than a 10 minute walk from any point within the pedestrian shed.

AGE-FRIENDLY SIDEWALKS AND PATHWAYS

WHO CRITERIA: SIDEWALKS AND PATHWAYS

Pavements are well maintained, free of obstructions and reserved for pedestrians.

Pavements are non-slip, are wide enough for wheelchairs and have dropped curbs to road level.

Pedestrian crossings are sufficient in number and safe for people with different levels and types of disability, with non-slip markings, visual and audio cues and adequate crossing times.

Drivers give way to pedestrians at intersections and pedestrian crossings.

Cycle paths are separate from pavements and other pedestrian walkways.

Outdoor safety is promoted by good street lighting, police patrols and community education.

Traffic flow is well-regulated.

Roadways are free of obstructions that block drivers' vision.

Traffic signs and intersections are visible and well-placed.

Good information about activities and events is provided, including details about accessibility of facilities and transportation options for older people.

DESIGN GUIDELINES: SIDEWALKS AND PATHWAYS

Key Objectives

Pedestrians of all ages and abilities can safely and easily walk around the community for transportation, exercise, and enjoyment.

Roads, sidewalks, and crossings are designed to calm traffic speeds and promote safe pedestrian, bicycle, and scooter movements.

Wayfinding is supported through age-friendly signage, landmarks, adequate lighting, and intuitive design.

Community-wide access, including access to residential, commercial, and park spaces, is continually addressed and understood at both the architectural and the urban scale.

DESIGN GUIDELINES: SIDEWALKS AND PATHWAYS (CONTINUED)

Design Guidelines

Sidewalks should be designed in accordance with local municipal standards for accessible pathways.

Sidewalks should be provided on at least one side of the street in all residential communities.

Public sidewalks should connect to residential developments through a single, level pathway.

Sidewalks should be a minimum of 1,500 mm in width, with curb cuts or rolled curbs to support wheelchair, walker, and scooter accessibility. Sidewalks in areas with moderate levels of pedestrian traffic should be a minimum of 1,800 mm in width.

Sidewalks along retail streets with moderate-to-high levels of pedestrian traffic may be increased to 2,500 mm in width in order to allow space for retail displays, transit queuing, bicycle parking, and pedestrian use. Sidewalks may be increased to 3,000 mm in busy commercial areas.

In commercial areas, street furniture, utility poles, and street trees should be located in the front 1,200 mm utility strip/furniture zone of the sidewalk area, leaving a clear path of no less than 1,800 mm. In low-to-medium density neighbourhoods or locations where street furniture, bus shelters or utilities impinge on the sidewalk space, municipalities should provide a minimum of 1,200 mm clearance to any obstacle.

Sidewalks should be constructed from level, slip-resistant materials, such as broom-finished concrete or asphalt. Paint, concrete surface treatments, and exposed aggregate are generally less slip-resistant, particularly when wet. Brick and cobblestone may improve the aesthetic quality of the sidewalk, but spaces between bricks may catch walker or wheelchair casters or create tripping hazards if the materials settle or heave. Decorative alternatives include concrete or asphalt walkways with brick or coloured concrete trim, and installation of bricks on a concrete slab to avoid settling or heaving issues.

Sidewalks should be visually consistent, in both colour and texture, because pedestrians with vision loss can find it difficult to distinguish between a change in colour or contrast and a change in grade and may trip as they adjust their gait to navigate the perceived change.

DESIGN GUIDELINES: SIDEWALKS AND PATHWAYS (CONTINUED)

Provide adequate crossing times for seniors at marked crosswalks. Required crossing speeds should not exceed 0.8 m/s, up to a maximum of 1.0 m/s, in areas frequented by large numbers of seniors or young children.

Pedestrian crosswalks should be equipped with pedestrian lighting, reflective crossing signs, and reflective surface markings to increase visibility of crosswalks during reduced daylight hours in winter, especially in school zones and areas with large numbers of seniors.

Develop small block sizes in new areas; blocks should average 80 m and should not exceed 150 m in length. In established neighbourhoods, encourage and support through-block connections between cul-de-sac or dead-end blocks.

In areas with seasonal snowfall, sidewalks should be designed to support the storage and removal of snow outside the path of travel.

Local governments may develop and distribute "scooter guidelines," which outline local, accessible public spaces and amenities, pertinent regulations, and safety recommendations.

Street trees should be included to improve the pedestrian experience and aesthetic appearance of the streetscape, serve as a visual and auditory buffer between pedestrians and traffic, provide shade, and provide a traffic calming effect. Street trees and landscaping should be designed in accordance with local municipal standards, and should include a number of common features :

- Street trees should be planted every 6-12 m on at least one side of the street;
- Street trees generally require a minimum area of 1,200 mm x 1,200 mm and should be planted in tree wells or grates to ensure adequate water penetration and prevent damage to the sidewalk from root penetration;
- Tree grates should be located within the planter/furniture zone, away from the main pathway of travel, crosswalks, and curb ramps;
- Where trees overhang a sidewalk, branches should be trimmed to at least 2,440 mm clear height ; and
- Tree grates should be designed such that:
  - Openings do not allow the passage of a 13 mm (0.5 in) sphere; and
  - The long dimension of the opening is perpendicular or diagonal to the dominant direction of travel.

DESIGN GUIDELINES: SIDEWALKS AND PATHWAYS (CONTINUED)

Seating and rest areas should be provided at least every 400 m in pedestrian areas. Seating should be provided more frequently, every 100–150 m, in areas with high senior populations. Benches should be stable, with a solid back rest, and should have a minimum seat height of 450 mm. Benches should provide colour contrast with the ground.

Transit stops should be provided every 200-400 m and should provide seating and shelter facilities for riders.

Street signage should be clear and well-lit, with large, high-contrast lettering, in accordance with the *Manual of Uniform Traffic Control Devices for Canada* (MUTCD).
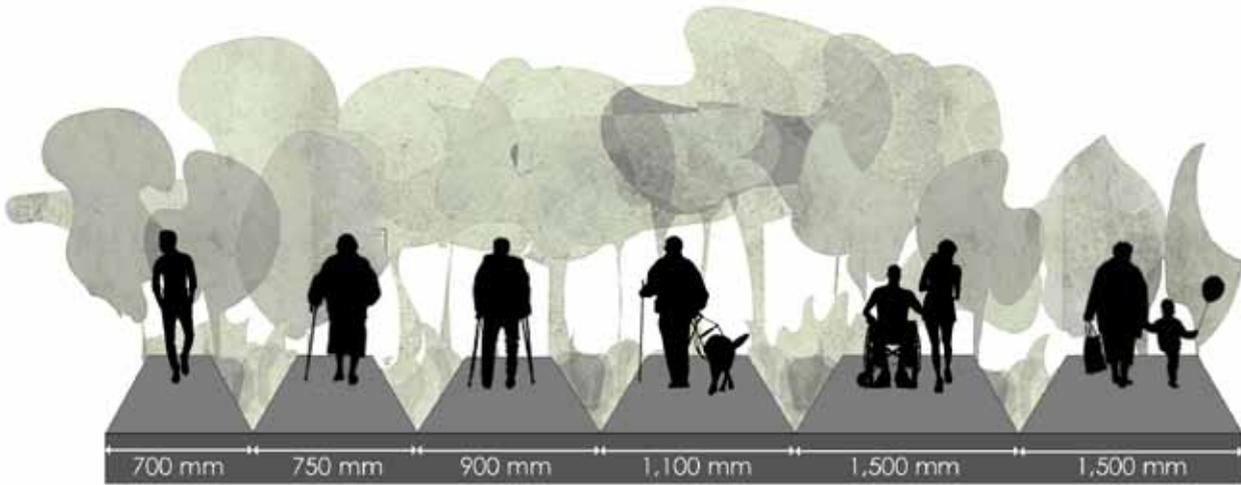
FIG 10.2 COMFORTABLE SIDEWALK WIDTHS

Average sidewalk widths in many municipalities range from 700 mm – 1,500 mm in low-to-medium density residential neighbourhoods, up to 3,000-3,500 mm in main street and commercial districts. But where do these numbers come from?

An ambulant person, who does not use a walking aid, can manage to walk along a sidewalk that is 700 mm wide. Personal comfort is enhanced when this width is increased to 1,000 mm. Two people walking side by side require a minimum sidewalk width of 1,500 m for personal comfort. The pair would need to walk single file in order to allow a person travelling in the opposite direction to pass.

People who are assisted or use mobility aids have different space requirements for comfort and safety. For example:

- A person walking with a cane requires a minimum sidewalk width of 750 mm to allow space to plant their cane for balance;
- A person walking using crutches or a walker requires a minimum sidewalk width of 900 mm;
- A blind person using a long cane or a guide dog requires a minimum sidewalk width of 1,100 mm, while a person who is being guided by an assistant needs a sidewalk width of 1,200 mm; and
- A wheelchair user and an ambulant person, walking side-by-side, require a minimum sidewalk width of 1,500 mm.

AGE-FRIENDLY OPEN SPACES

WHO CRITERIA: OPEN SPACES

Public areas are clean and pleasant.

Green spaces and outdoor seating are sufficient in number, well maintained and safe.

Pavements are non-slip, are wide enough for wheelchairs and have dropped curbs to road level.

Cycle paths are separate from pavements and other pedestrian walkways.

Outdoor safety is promoted by good street lighting, police patrols and community education.

Public toilets, outdoors and indoors are sufficient in number, clean, well maintained and accessible.

Venues for events and activities are conveniently located, accessible, well lit and easily reached by public transport.

Gatherings including older people are held in various local community spots, such as recreation centres, schools, libraries, community centres and parks.

Community-wide settings, activities and events attract all generations by accommodating age-specific needs and preferences.

Older people are specifically included in community activities for "families."

DESIGN GUIDELINES: OPEN SPACES

Key Objectives

Public and private spaces are located within reasonable walking distance to residential dwellings, support a variety of events and activities, and promote informal social interaction.

Recreation facilities offering programs for seniors are provided in, or adjacent to, shared public open spaces.

DESIGN GUIDELINES: OPEN SPACES

Conflict between users in public open space is minimized through design, while supporting intergenerational interaction and activity.

Casual social interaction between residents and people passing by is facilitated by the design of front yards.

Communal spaces in multi-unit buildings are designed to support and encourage social interaction.

Design Guidelines

Dwelling units are located within a maximum of 400 m from safe and pleasant open spaces.

Recreational shared-use pathways should be a minimum of 3,500 mm wide to allow adequate space for pedestrians, cyclists, wheelchairs, strollers, and scooters.

Public open spaces should provide adequate seating and rest areas, located in sheltered areas and along pedestrian paths at 100 - 400 m intervals. Benches should have stable backrests and armrests, and a minimum seat height of 450 mm. Benches should provide colour contrast with the ground.

Where possible, parks should provide accessible public washrooms, shaded areas, and water fountains.

Benches and rest areas may be located on private property, either through a partnership with the municipality or by permitting and encouraging private citizens to incorporate seating elements into their landscaping.

A variety of open spaces (parks, gardens, plazas, etc), each with its own distinctive features, are evenly spread around the community. All dwellings should be located within a short walk to at least one active and one passive public open space.

Public spaces should be located where they reinforce existing significant physical nodes, such as shopping centres and public transit hubs, and assist in defining a sense of place.

Areas of open space are deliberately designed to separate active areas from places to sit and observe through the use of well-designed pathways and landscaping elements.

DESIGN GUIDELINES: OPEN SPACES (CONTINUED)

Spaces that support children's play activities are provided in ways that maximize intergenerational interaction, avoiding potential conflict while allowing older people to watch children play.

Outdoor fitness equipment is provided in areas with large numbers of seniors and older adults.

Sidewalks should be constructed from level, slip-resistant materials, such as broom-finished concrete or asphalt. Paint, concrete surface treatments, and exposed aggregate are not generally as slip-resistant, particularly when wet or frosty, and are discouraged.

In areas with seasonal snowfall, sidewalks and pathways should be designed to support snow storage and removal outside the path of travel.

WINTER CITY DESIGN GUIDELINES

Accessibility considerations for public spaces, sidewalks, and streets are incomplete without consideration of winter design principles. Rain and frost can make sidewalks slippery and windrows left by snowplows can become impassable barriers for people with mobility challenges. Seniors, particularly those facing issues with balance, mobility, and stamina, may find themselves disproportionately impacted by weather conditions and may choose to remain home rather than risking injury attempting to walk, drive, or bus to errands, appointments, and social engagements.

Winter design features that should be considered to support age-friendly housing include:

- Adequate and continuous street lighting to compensate for shorter daylight hours;
- Covered entrances at single and multi-unit housing developments to protect residents and visitors from the elements;
- Shelters provided at high-use transit stops and those with high numbers of senior riders;
- Aligning new developments to maximize sunlight penetration into buildings and public spaces and impede prevailing winds;
- Planning small, distributed snow storage areas with solar access, rather than one large, shaded area, to encourage snow to melt faster;
- Ensuring roof designs prevent falling ice, snow, and discharge of leaders onto entrances and walkways;
- Protecting ramps and stairs from ice and snow to ensure safe movement for all pedestrians, including those who use wheelchairs, walkers, canes, and strollers;
- Ensuring proper site drainage, particularly along public sidewalks, at bus stops, and at curb ramps, to ensure that these areas remain accessible and are not subject to flooding; and
- Installing pedestrian lighting, reflective crossing signs, and reflective surface markings to increase visibility of crosswalks during reduced daylight hours in winter, especially in school zones and areas with large numbers of seniors and children.

AGE-FRIENDLY NEIGHBOURHOODS

WHO CRITERIA: NEIGHBOURHOODS

Buildings are well-signed outside and inside, with sufficient seating and toilets, accessible elevators, ramps, railings and stairs, and non-slip floors.

Sufficient affordable housing is provided in areas that are close to services and the rest of the community.

Sufficient and affordable home maintenance and support services are available.

Housing is well-constructed and provides safe and comfortable shelter from the weather.

Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.

Home modification options and supplies are available and affordable, and providers understand the needs of older people.

Public and commercial rental housing is clean, well-maintained and safe.

Sufficient and affordable housing for frail older people and people with disabilities with appropriate services is provided locally.

Parking and drop-off areas are safe, sufficient in number and conveniently located.

Priority parking and drop-off spots for people with special needs are available and respected.

An adequate range of health and community support services is offered for promoting, maintaining and restoring health.

Health and social services are conveniently located and accessible by all means of transport.

Residential care facilities and designated older people's housing are located close to services and the rest of the community.

DESIGN GUIDELINES: NEIGHBOURHOODS

Key Objectives

Parking requirements acknowledge the need for caregiver parking, as well as future unit turnover (potentially to an adult who owns and uses a personal vehicle).

There are a range of housing types and tenures, including affordable and accessible dwelling units, located within each community.

There is a strong relationship between residential units, shared spaces, and the public realm which contribute to passive surveillance, opportunities for social interaction, and sense of place.

The design and orientation of residential developments support passive solar orientation, making living spaces more comfortable and reducing energy costs. Buildings are constructed from low-maintenance, environmentally-responsible materials.

There is a safe, level, and continuous pathway from the street entrance and/or parking area to at least one dwelling entrance.

Design Guidelines

In low-to-medium density residential communities, fences and landscaping along front property lines should be no higher than 1,200 mm to allow people to see over them.

Front porches are encouraged to facilitate casual neighbourly interactions and provide "eyes on the street."

Seating may be provided next to mailboxes, near communal entrances, and along the front property line of private residences to support social exchanges and "neighbourliness."

Entrances to all buildings are easy to identify from the street, with clear addresses and distinguishable features. Dwellings within multi-unit buildings may incorporate different door colours and treatments to aid in wayfinding for residents coping with memory loss.

Protected private and communal outdoor areas should be included to allow people to sit outside and enjoy the sun, while encouraging and supporting social interaction.

In residential units and buildings with large numbers of senior residents, enclosed private spaces should be provided for storing and recharging scooters.

11   HOUSING DESIGN GUIDELINES

The development process presents a number of opportunities for accessibility and age-friendly design to be discussed. The purpose of this section is to provide design guidance for residents, developers, builders, and local governments, who are interested in incorporating age-friendly features into newly-built dwellings. The recommendations in this section are organized around the Canadian Standards Association criteria for residential accessibility and the World Health Organization's *Checklist of Essential Features of Age-friendly Cities*.

VISITABLE HOMES

WHO CRITERIA: VISITABLE HOMES

Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community.

Housing is well-constructed and provides safe and comfortable shelter from the weather.

Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.

Public and commercial rental housing is clean, well-maintained and safe.

DESIGN GUIDELINES: VISITABLE HOMES

Key Objectives

Housing design promotes the inclusion of a basic level of visitability into all newly-built housing that enables everyone to visit the home.

Housing design acknowledges that the home will exist through many owners and users, some of whom may face mobility challenges.

Homeowners can return to their homes following a sudden change in mobility.

Visitable homes are marketable to a wider demographic.

DESIGN GUIDELINES: VISITABLE HOMES (CONTINUED)

Housing meets the three core design elements for visitable dwellings, as outlined in the *Accessible Housing by Design Guidelines* that were prepared by the CMHC :

- At least one no-step entry;
- Widened main floor interior doors; and
- At least a half-bath, but preferably a full bath, on the main floor that is accessible by a person using a wheelchair or other mobility aids.

Visitability features are incorporated into the architectural style of the home so that everyone uses the home in the same way.

Visitable communities ensure that a basic level of accessibility will be provided in all dwellings and community spaces, supporting residents' participation in community life.

Visitability features add little or no additional cost to the construction of a home, if designed and incorporated from the outset.

Design Guidelines

All interior doors, including bathrooms, should feature a clear opening width of 810 mm, however a clear space of at least 860–915 mm is preferred. Hallways should be a minimum of 1,100 mm in width.

At least one bathroom on the main floor of the dwelling should be designed to allow 750 mm x 1,200 mm of maneuvering space in front or beside all fixtures, with an overall maneuvering space of 1,500 mm x 1,500 mm.

At least one no-step entrance must be provided, preferably at the main entrance to the dwelling. When this is not possible, a no-step entry may be provided at the back or side of the dwelling, or though an attached garage.

The pathway to the entrance should be accessible from a municipal sidewalk, driveway, or other public route, with a clear width of 915 mm and should not have a slope greater than a ratio of 1:20.

The landing at the entrance to the housing unit should offer a level landing that is at least 1,500 mm x 1,500 mm.

DESIGN GUIDELINES: VISITABLE HOMES (CONTINUED)

Lot grading plans should be designed with split drainage to reduce the grade differential between the site and the ground floor of the dwelling to accommodate a no-step entry .

In areas where basements are common in new developments, sewer inverts may be placed deeper to allow for basements to be lowered to accommodate a no-step entry.

Dwellings may include an accessible bedroom or "flex" room, accessible kitchen, and accessible laundry area on the main floor.

WHAT'S THAT IN INCHES?

450 mm is roughly equal to **18 inches** (acceptable height of a bench, seating wall, or toilet)
900 mm is roughly equal to **36 inches** (acceptable doorway width to allow passage of a wheelchair)
1,100 mm is roughly equal to **42 inches** (space needed for a wheelchair user to open and move through doors)
1,500 mm is roughly equal to **60 inches** (clear space needed to turn a manual wheelchair 180 degrees)
1,800 mm is roughly equal to **70 inches** (clear space needed to turn an electric wheelchair 180 degrees)

ADAPTABLE HOMES

WHO CRITERIA: ADAPTABLE HOMES

Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community.

Sufficient and affordable home maintenance and support services are available.

Housing is well-constructed and provides safe and comfortable shelter from the weather.

Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.

Home modification options and supplies are available and affordable, and providers understand the needs of older people.

Public and commercial rental housing is clean, well-maintained and safe.

Sufficient and affordable housing for frail and disabled older people, with appropriate services, is provided locally.

DESIGN GUIDELINES: ADAPTABLE HOMES

Key Objectives

Future modifications are able to be made easily and in a cost-effective way.

Housing continues to provide the initial and future occupants with accessibility, safety, security, ease of operation, convenience, and comfort as their needs and preferences change over time.

Landlords and building owners acknowledge their "duty to accommodate" and take reasonable measures to remove barriers that adversely impact a tenant's ability to occupy a dwelling unit.

Housing design incorporates structural considerations to accommodate future accessibility.

Homeowners can easily modify their homes following a sudden change in mobility.

DESIGN GUIDELINES: ADAPTABLE HOMES (CONTINUED)

Design Guidelines

To ensure a dwelling will be flexible enough to meet a broad range of individual needs over time, features that would be difficult to retrofit should be incorporated at the time of construction, including flexible floor plans, inclusion of an accessible bathroom on the ground floor, space for wheelchair maneuverability in all rooms and circulation spaces, and wide doorways .

Housing units should offer at least one no-step, grade-level access to the ground floor.

Entrances to the home should be sheltered, have adequate lighting, and provide a level landing area of at least 1,500 mm x 1,500 mm.

A bathroom should be located on the main floor of the unit and is designed for easy and independent access for all home occupants, including space for maneuvering a wheelchair, an outward-opening or pocket door, no-step showers, nonslip floor tiles, and a toilet height of between 430 mm and 480 mm.

Walls around the toilet, shower and bath should be reinforced to facilitate the safe and economical installation of grab bars at a later date.

The kitchen and laundry spaces should be located on the ground level and be designed for ease of movement between fixed benches and should support future adaptation.

Flexible space should be provided on the ground level that can be used as a bedroom. The room should be designed to provide a minimum turn radius of 1,500 mm on both sides of a double bed.

Where required, stairs should be straight run and should be a minimum of 1,000 mm wide, with reinforced walls to facilitate future installation of a platform lift. Handrails should extend beyond the top and bottom of the stairs to allow users to hold the rail before beginning to climb or descend the stairs.

Light switches and power outlets should be located at heights that are easy to reach for all home occupants. Light switches should be located 1,050 mm from floor level and electrical outlets should be located 450 mm from floor level.

Interior doors should provide a minimum clear opening width of 810 mm. Hallways should be a minimum of 1,500 mm wide to provide adequate maneuvering room, particularly at doorways and landings. Doors should be equipped with lever hardware for ease of use.

DESIGN GUIDELINES: ADAPTABLE HOMES (CONTINUED)

Windows should have sills no higher than 750 mm from floor level, so that they may be used by a person in a seated position, and should be equipped with crank or lever hardware.

The floor plans of multi-storey homes should be architecturally and structurally designed with stacked closets or storage spaces, which could support the future installation of an elevator or lift.

In multi-unit buildings, entrance doors to the units may provide variations in design, such as colour choice and door style, to promote individuality and support wayfinding in the event of memory loss.

Wherever possible, low maintenance, environmentally-friendly features should be included. These features reduce the impact of the housing on the environment and can decrease the operating cost of the unit over time, contributing to housing affordability. Environmentally-friendly features include:

- renewable building materials and low emitting finishes;
- low maintenance roofing and cladding materials;
- low-flow toilets and faucets;
- energy-efficient appliances;
- energy-efficient windows and building envelope; and
- rainwater cisterns for domestic water and garden use.

ACCESSIBLE HOMES

WHO CRITERIA: ACCESSIBLE HOMES

Buildings are well-signed outside and inside, with sufficient seating and toilets, accessible elevators, ramps, railings and stairs, and non-slip floors.

Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community.

Sufficient and affordable home maintenance and support services are available.

Housing is well-constructed and provides safe and comfortable shelter from the weather.

Interior spaces and level surfaces allow freedom of movement in all rooms and passageways.

Home modification options and supplies are available and affordable, and providers understand the needs of older people.

Public and commercial rental housing is clean, well-maintained and safe.

Sufficient and affordable housing for frail and disabled older people, with appropriate services, is provided locally.

Residential care facilities and designated older people's housing are located close to services and the rest of the community.

DESIGN GUIDELINES: ACCESSIBLE HOMES

Key Objectives

The design of housing units recognizes that occupants of a dwelling have a range of abilities that change over time.

Accessible design affords everyone the same choices for using the built environment. Accessibility features consider the needs of users with limited mobility or with cognitive impairments.

DESIGN GUIDELINES: ACCESSIBLE HOMES (CONTINUED)

Design Guidelines

At least one accessible exit or area of refuge should be available from each floor level in a multi-storey dwelling.

An accessible bathroom should be located on the main floor. The bathroom should provide:

- 1,500 mm x 1,500 mm maneuvering space;
- an outward-opening or pocket door;
- a raised toilet fixture of between 430 mm and 480 mm;
- a no-step shower with accessible controls;
- a vanity with knee space and an accessible faucet;
- non-slip flooring;
- grab bars for the toilet or a bolted tank to provide physical support to users; and
- grab bars for shower areas.

Kitchens should provide a minimum width of 1,200 mm in a galley-style kitchen, and 1,500 mm in a u-shaped kitchen. Kitchens should incorporate work surfaces that are appropriate for both standing and seated use.

Laundry spaces should provide a minimum of 750 mm by 1,200 mm in front of each appliance.

Light switches and power outlets are located at heights that are easy to reach for all home occupants. Light switches should be located 1,050 mm from floor level and electrical outlets should be located 450 mm from floor level.

Interior doors should provide a minimum clear opening width of 810 mm. Hallways should be a minimum of 1,500 mm wide to provide adequate maneuvering room, particularly at doorways and landings. Doors should be equipped with lever hardware for ease of use.

Stairs should be straight-run and should feature steps that are deeper, with shorter rises and nosings that are shaped to guide the foot over the front of the step. Stairways should provide continuous handrails on both sides that are easy to grasp for small and large hands.

DESIGN GUIDELINES: ACCESSIBLE HOMES (CONTINUED)

Windows should have sills no higher than 750 mm from floor level, so that they may be used by a person in a seated position, and should be equipped with crank or lever hardware.

Enhanced ambient and task lighting should be incorporated throughout the dwelling unit.

Floor finishes should be level, smooth, slip-resistant, and glare-free. Appropriate options include hardwood, low-pile carpet, and ceramic tile.

Contrasting surfaces and finishes may be incorporated to support users with limited vision, including contrasting baseboards and door trim, counter tops and backsplashes, wall switches, and door hardware.

Dwelling units should incorporate a smoke alarm system that provides audible alarm sounds as well as visual signals (flashing strobe lights).

In multi-unit buildings, entrance doors to the units may provide variations in design, such as colour choice and door style, to promote individuality and support wayfinding in the event of memory loss.

Wherever possible, low maintenance, environmentally-friendly features should be included. These features reduce the impact of the housing on the environment and can decrease the operating cost of the unit over time, contributing to housing affordability. Environmentally-friendly features include:

- renewable building materials and low emitting finishes;
- low maintenance roofing and cladding materials;
- low-flow toilets and faucets;
- energy-efficient appliances;
- energy-efficient windows and building envelope; and
- rainwater cisterns for domestic water and garden use.

PART IV: IMPLEMENTATION

Developers are often criticized for their focus on creating profitable developments. Rather than solely being a negative aspect of property development, the ability to earn a profit on investment is a critical aspect of a healthy, balanced economy. Framed in this way, local governments have the opportunity to reposition age-friendly housing design, including accessibility and adaptability features, as part of an economic model for developers. Leveraging available development incentive tools, including fast-tracking, density bonusing, fee waivers, and award programs in such a way that developers are able to recuperate time and monetary expenses, or increase the marketability of their developments, will help to increase voluntary participation in the creation of age-friendly, accessible dwellings and communities.

12   INCENTIVIZING AGE-FRIENDLY DEVELOPMENT

As outlined in Canada's constitutional framework, local governments in British Columbia are governed by the laws of the Province of British Columbia. As such, the range of policy options available to local governments is constrained by the *Local Government Act*, which outlines the powers and obligations of municipalities in British Columbia. The statutes and sections relevant to development incentives are summarized in the table below:

INCENTIVES PERMITTED UNDER CURRENT LEGISLATION

Disposition of Land

Local Government Act, Part 8 [Regional Districts: General Powers and Responsibilities], Division 6 [Disposing of Land and Improvements]

- In the event a Regional Board wishes to dispose of land, it must make the land available to the public for acquisition, with the exception of disposition of the land to a not-for-profit corporation, a public authority, a person under a partnering agreement, or a person or entity as outlined in section 285 (2).

Density Benefits

Local Government Act, Part 14 [Planning and Land Use Management], Division 5 [Zoning Bylaws]

- Local governments may, through their zoning bylaw, establish different density rules for a zone if applicable conditions are met, including:

  - ➢ conditions relating to the conservation or provision of amenities, including the number, kind and extent of amenities;
  - ➢ conditions relating to the provision of affordable and special needs housing, as such housing is defined in the bylaw, including the number, kind and extent of the housing;
  - ➢ a condition that the owner enter into a housing agreement under section 483 before a building permit is issued in relation to property to which the condition applies.

- Local governments may designate an area within a zone for affordable or special needs housing if the owners of the property covered by the designation consent to the designation.

FIG. 12.1
SUMMARY OF CURRENT LEGISLATION

INCENTIVES PERMITTED UNDER CURRENT LEGISLATION (CONTINUED)

Planning and Development Fee Exemptions

Local Government Act, Part 14 [Planning and Land Use Management], Division 19 [Development Costs Recovery]

- Local governments are able to waive or reduce development cost charges only in accordance with those categories listed in section 563, including:
  - ➤ not-for-profit or for-profit rental housing, including supportive living housing.
- Local governments are not permitted to provide assistance to businesses under section 273 of the LGA and section 25 (1) of the *Community Charter*.

Property Tax Reductions

Local Government Act, Part 2 [Incorporation of Municipalities and Regional Districts], Division 4 [Specific Powers in Relation to Municipal Letters Patent]; *Community Charter,* Part 7 [Municipal Revenue], Division 7 [Permissive Exemptions]

- Local governments are able to establish tax rates in accordance with section 29 of the LGA and section 197 (1) (a) of the *Community Charter*;
- Local governments have the authority to specify an exemption from, or limit on, tax rates as outlined in section 224 (2).

Fast-tracking Applications

Fast-tracking of applications is generally permitted through the administrative processes of local governments, as defined by local policies.

FINANCIAL INCENTIVES AND STRATEGIES

Provincial legislation permits a number of strategies thorough which local governments can incentivize age-friendly developments. Many local governments already have incentives in place to encourage the provision of affordable housing which, if aligned with age-friendly checklists and recommendations, could have a significant impact on the amount of affordable, age-friendly housing stock within a municipality or district. These incentives may include:

- grants and loans;
- fast-tracking;
- fee waivers and reductions; and
- land deals.

Grants and Loans

Many Canadian provinces and local governments offer grants and loans to private and not-for-profit developers, housing agencies, and other qualified applicants to help fund housing developments. Grants and loans may take a variety of forms and can be tailored to fit a wide range of purposes.

The advantage of provincial or municipal contributions through a grant or loan program is that conditions can be placed on the use of the money by the funding organization as per its policy objectives. Grants could be available to provide funding assistance for projects such as:

- age-friendly housing research and feasibility studies;
- seed funding for the creation of non-profit housing agencies;
- seed funding for the development of cohousing or co-operative housing developments; and
- grants and loans for non-profit housing developments.

Examples include:

Age-friendly Communities Grant Program[42]

The Age-friendly Communities Grant Program, administered by the Ministry of Community, Sport, and Cultural Development at the Province of British

---

42 Union of BC Municipalities. "Age-friendly Communities." Accessed July 3, 2017. http://www.ubcm.ca/EN/main/funding/lgps/age-friendly-communities.html

Columbia, is intended to assist local governments in BC to support aging populations, develop and implement policies and plans, undertake projects that enable seniors to age in place, and facilitate the creation of age-friendly communities. Local governments can receive up to $25,000 to complete age-friendly assessments, action plans, and planning documents, and up to $15,000 to complete age-friendly projects and initiatives.

Capital Regional District (CRD) Grants-in-Aid[43]

Grants-in-Aid are one-time grants awarded to community non-profit organizations operating within the Juan de Fuca, Salt Spring Island and Southern Gulf Islands Electoral Areas. They are awarded to projects or activities which are beyond the scope of CRD services and are intended to support special one-time projects by for non-profit agencies or societies for projects of benefit to the Electoral Area. While not applicable to individual housing developments, Grants-in-Aid could be useful to provide age-friendly community amenities which support seniors in accessing and actively participating in their communities.

Fast-tracking

Fast-tracking is a valuable incentive tool that allows local governments to advance their Official Community Plan policy objectives, while reducing costs for developers. Local governments have the authority to establish administrative procedures and policies to fast-track development and rezoning applications, giving priority to those applications which meet certain, predetermined criteria. Fast-tracking is effective in removing barriers and red tape, while encouraging applications that contribute to the overall health and well-being of a community.

Once a local government establishes a set of age-friendly housing criteria, staff can fast-track compliant rezoning, development permit, building permit, and subdivision applications. Fast-tracked applications work by moving compliant applications to the front of the approval line. This tool can be used to encourage age-friendly developments, including those which take advantage of existing transit and infrastructure, developments which provide visitability, adaptability, or accessibility features, buildings which increase the

---

43 Capital Regional District. *Grant-In-Aid Application Completion Guide*. September 2010. Accessed September 6, 2017. https://www.crd.bc.ca/docs/default-source/corporate-communications-pdf/application-guide-grants-in-aid.pdf?sfvrsn=fb9c95c9_0

amount of age-friendly affordable housing stock, and developments which contribute significantly to creating an age-friendly public realm. When used alongside a development checklist, fast-tracking can be a powerful incentive to encourage developers to meet or exceed voluntary standards for building design.

Fee Waivers and Reductions

Fees charged by local governments for rezoning, development, and permit applications often add considerable cost to residential development projects. To provide a financial incentive for owners and developers to meet municipal policy objectives, some local governments waive or reduce these fees in exchange for specific, predetermined design elements. Fee waivers and reductions have the potential to significantly impact uptake of voluntary accessibility guidelines, particularly if aligned with affordability or other policy objectives. Planning and development fees that are commonly adjusted in Canadian cities include:

- Official Community Plan or zoning bylaw amendment fees;
- development variance application fees;
- development permit application fees; and
- building and demolition permit fees.

Land Deals

In order to promote the development and preservation of affordable housing, many local governments enter into land deals with housing agencies through giving, selling, or leasing municipal surplus lands at less than market value. In some cases, the local government will further ensure the long-term affordability of the development, either through a long-term lease or by placing restrictive covenants onto the title of the property. Land deals require local governments to carry a supply of surplus lands and be willing to enter into, and manage, leases, restrictive covenants, and partnerships with housing developers. While land deals are appropriate for affordable housing initiatives, they are unlikely to increase the supply of accessible housing unless local governments choose to align voluntary accessibility standards with affordable housing programs.

STRATEGIC PARTNERSHIPS

Across Canada, local governments are increasingly partnering with healthcare providers, community groups, the development industry, non-profit organizations, and financial institutions to meet the growing need for housing in their communities. Partnership outcomes and examples that could significantly impact the implementation of age-friendly housing policies include:

Demonstration Projects

Local governments may choose to select one or two communities to host demonstration projects. These projects could see increased municipal involvement and, in some cases, investment, during the development process in order to demonstrate how a policy could "build out" over time. Demonstration projects are useful to pilot policy initiatives, build local support, and test program and investment options.

Example:

In response to a provincial goal to see fifty percent of newly-built homes designed to "visitability" standards, Manitoba Housing issued a request for proposals to builders to design a model home with visitability features. Fourteen visitable homes were piloted in a Winnipeg subdivision to test the economic feasibility of, and public interest in, the model. Bridgwater Forest was the first neighbourhood developed in the project and included a show home and an entire street of visitable homes. Public interest in the visitable homes was enormous and fifty percent of the homes in the next two neighbourhoods were built to visitable standards. This demonstration project resulted in the creation of over 1,000 visitable houses and hundreds of low-to-moderate density dwelling units with visitability features. It proved that builders can incorporate changes that accommodate the needs of a wider range of the population, with minimal cost implications, and still have a marketable and profitable product. In fact, by 2014, the visitable Bridgwater neighbourhoods were the fastest-selling subdivisions in Winnipeg[44].

---

44 Canada Mortgage and Housing Corporation. *Visitable Homes*. Report. June 14, 2016. Accessed September 3, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/68677.pdf

Award Programs[45]

Award programs offer local governments the opportunity to incentivize voluntary targets, goals, and objectives, often with minimal financial investment. Owners and developers are rewarded for including additional design features through public recognition by the municipality. Any additional cost to developers for including these features would be offset by the increased marketability and desirability of the development. Local government investment may include recognition plaques and/or certificates, award ceremonies, and staff time for application review and administration.

Example:

In 2009, the Township of Esquimalt and the Social Planning and Research Council of British Columbia (SPARC BC) completed an audit to assess the level of accessibility of local community amenities, buildings, and businesses. As a result of this audit, the Township introduced the Gold Star Accessibility Award Program to officially recognize local businesses for their outstanding commitment to accessibility. Divided into four categories, Platinum, Gold, Silver, and Bronze, businesses who voluntarily met and exceeded accessibility requirements could be recognized by Council with an award recognizing their achievement. Evaluated through a process similar to a LEED or Heritage designation, applicants completed an accessibility checklist for review by the Township. Based on the criteria identified in the checklist, accessible businesses were presented with a certificate for display, as well as inclusion on the municipal website.

When applied in the context of age-friendly housing, an award program could provide four levels of recognition:

BRONZE (visitable or somewhat accessible)
- Development meets current building code requirements for access, but does not go beyond minimal requirements;
- Housing incorporates visitable features, including at least one no-step entry, a washroom on the ground floor that can be accessed by a person in a wheelchair, and widened interior doorways for ease of circulation;
- Dwellings and buildings that are not required to be up to current

45 Township of Esquimalt. *Esquimalt Age-friendly Assessment*. August 2016. Accessed September 2, 2017. https://www.esquimalt.ca/sites/default/files/docs/esquimalt_age-friendly_assessment_final.pdf

code, such as historic or existing buildings, have made reasonable efforts to upgrade to code; and

- Housing is located within a reasonable walking distance to amenities, open spaces, and public transportation.

SILVER (reasonably accessible or adaptable)

- Development meets all the requirements of BRONZE status;
- Design of housing includes some *BC Building Code* (Part 3) or CSA accessibility features;
- Housing incorporates structural features for future adaptability, including a bedroom or flex room on the main floor, accessible washroom and kitchen on the ground floor, blocking in walls for shower or toilet grab bars, and stacked storage spaces for the future installation of an elevator or lift; and
- Housing is located within close walking distance to amenities, open spaces, and accessible transit.

GOLD (fully accessible or universal design)

- Development meets all the requirements of the SILVER status;
- Design of housing includes *BC Building Code* (part 3 building) or CSA accessibility features, including rocker-style light switches, lever door handles, floor level lighting, adequate turning radii, and level thresholds;
- Entrances, washrooms, circulation, and fixtures meet *BC Building Code* (part 3 building) or CSA accessibility standards for residential developments; and
- Housing is located adjacent to amenities, open spaces, and accessible public transportation.

PLATINUM (exemplary)

- Development meets all requirements of GOLD status;
- Housing design surpasses *BC Building Code* (part 3 building) or CSA accessibility standards for residential developments; and
- Housing is considered a model for age-friendly, accessible residential design.

According to the Township of Esquimalt, this program had significant uptake and helped Esquimalt advance its objectives of becoming an accessible and inclusive community. This type of award program has enormous potential to increase uptake of voluntary accessibility recommendations by providing marketing opportunities for developers, with minimal financial investment from the local government. Municipalities will also be able to attract future investment through their strengthened position as inclusive and accessible communities and residents, visitors, and workers will benefit from accessible, adaptable, and visitable housing and community facilities.

Leveraging Resources

A municipality may offer resources to encourage voluntary compliance with guidelines and leverage the contribution of other partners. The municipality may offer free or discounted land or buildings, preferential leases, or financial support to independent developers, builders, or non-profit housing providers that meet local government requirements for affordability and, potentially, accessibility. Regulatory and financial concessions might include streamlining the development process, providing development or permit fee discounts, or tax exemptions.

Community-based Non-profit Housing Corporations

Over the years, municipalities have partnered with a broad range of other housing stakeholders to establish community-based, non-profit housing corporations. These organizations may be led by either private citizen groups, (such as a non-profit housing co-operative), by non-profit housing organizations (such as Habitat for Humanity), or by government authorities (such as the Capital Regional Housing Corporation).

Strategic Investments

Local governments often make strategic investments, in either renovations or new construction, in order to trigger broader private investment. These investments can take the form of funding main street revitalizations, façade improvements, public transportation infrastructure, park and green space improvements, and waterfront redevelopments.

13   STRATEGIC GOALS AND ACTIVITIES

Implementation is a critical aspect of any community development objective. While policies and regulations provide local governments with critical tools to define and advance their objectives, a well-considered implementation plan is critical to the overall success of a community in meeting its objectives.   Implementation strategies are most effective when aligned with set procedures, timelines, resources, communication plans, and leadership.

Implementation strategies should:

- prioritize implementation goals and set a time frame for completion;
- align goals and desired outcomes with other strategic planning documents and processes, such as administration of the Official Community Plan, neighbourhood plans, development processes, and permitting;
- identify financing priorities and options, including opportunities for cost-savings through interdepartmental and interagency collaboration; and
- be visionary and provide benefit in multiple areas of community life, wherever possible.

This section will explore examples of potential implementation opportunities that support age-friendly housing and community design in BC. This list is not exhaustive, but rather is intended to illustrate possible opportunities for local governments to align municipal programs and processes to advance their age-friendly objectives.

SMART GOALS

SMART goal setting is a tool used by businesses to turn corporate objectives into an actionable plan for results. Due to its cumulative nature, community development aligns well with SMART principles, allowing local governments to set and achieve incremental goals that, together, form an implementation strategy that can be used to advance a particular policy objective. SMART is an acronym for the five elements that are essential to creating an actionable goal.

To be SMART, a goal must be:

Specific   Outcomes and goals are distinct and defined using action verbs, containing no ambiguous language.

Measurable   Progress toward, and completion of, the goal can be measured using concrete, objective criteria.

Accountable   Partners and stakeholders have been properly engaged and the goal is appropriate and can be realistically achieved by the people involved.

Realistic   The context has been considered and the resources needed to accomplish the goal have been anticipated.

Time-based   A reasonable start date has been set and there is a set date for completion.

OUTCOME 1: MUNICIPAL POLICIES SUPPORT AND ENCOURAGE AGE-FRIENDLY HOUSING

Goals

1. All local governments within the region develop and approve age-friendly policies, practices, and implementation strategies.

Activities

1. Examine municipal policies for exclusion of housing diversity, accessibility, walkability, and other age-friendly features.

2. Identify communities and municipalities which do not currently have age-friendly policies in place as part of their OCP or Neighbourhood Plans.

3. Identify priority communities for application and incentivization of age-friendly guidelines and practices. Particular attention should be given to communities that are close to amenities, well-serviced by transit, and with large emerging senior populations.

4. Identify age-friendly housing targets based on data relating to current housing starts.

5. Identify and prioritize upcoming local plan and policy revisions and develop precedent for specific, age-friendly language that can be included in these revisions.

Outputs

1. Specific, age-friendly wording has been incorporated into all Official Community Plans, housing strategies, and neighbourhood plans.

   Timeline: 1-5 years
   Level of Investment[46]: $
   Measures: Inclusion of age-friendly policies in regional plans, Official Community Plans, housing strategies, and neighbourhood plans
   Lead Partner: local governments, regional authorities, housing organizations
   Key Stakeholders: seniors, residents, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

FIG. 13.1
MUNICIPAL POLICY OUTCOMES

---

46 Level of investment refers to any cost over and above existing project or program costs.

OUTCOME 1: MUNICIPAL POLICIES SUPPORT AND ENCOURAGE AGE-FRIENDLY HOUSING (CONTINUED)

Outputs (continued)

2. Age-friendly housing and community design guidelines have been developed and approved.

   Timeline: 1-5 years
   Level of Investment: $$
   Measures: Age-friendly housing guidelines and development checklists have been created
   Lead Partner: local governments, regional authorities, housing organizations
   Key Stakeholders: seniors, residents, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

3. An implementation strategy for age-friendly housing has been created, either as a stand-alone document or as part of a municipal or regional housing or community development strategy. This document should contain guidance and procedures for ongoing monitoring and evaluation.

   Timeline: 1-5 years
   Level of Investment: $$
   Measures: Age-friendly housing objectives and evaluation measures have been identified
   Lead Partner: local governments, regional authorities, housing organizations
   Key Stakeholders: seniors, residents, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

OUTCOME 2: MUNICIPAL ZONING AND DEVELOPMENT REGULATIONS SUPPORT AND ENCOURAGE AGE-FRIENDLY HOUSING

Goals

1. Municipal building and development regulations are updated to facilitate age-friendly development practices

2. Local governments educate developers, residents, and owners about visitability and accessibility standards that advance age-friendly objectives.

Activities

1. Implement guidelines and regulations that are in line with the provincial *Accessibility 2024 Action Plan*.

2. Examine municipal zoning bylaws for exclusion of housing diversity, accessibility, walkability, and other age-friendly features.

3. Develop voluntary and mandatory visitability and accessibility standards for new developments.

Outputs

1. Checklist is created for planners, development officers, developers, and residents, and is used to guide discussions about accessibility early in the design and planning process.

   Timeline: 2-5 years
   Level of Investment: $
   Measures: Creation of an age-friendly development checklist
   Lead Partner: local governments
   Key Stakeholders: local governments, seniors, residents, developers, AIBC, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

2. Mandatory and voluntary accessibility standards are incorporated into the development review process.

   Timeline: 2-5 years
   Level of Investment: $$
   Measures: Accessibility standards are created; staff training programs are implemented
   Lead Partner: local governments
   Key Stakeholders: local governments, seniors, residents, developers, AIBC, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

FIG. 13.2
MUNICIPAL
REGULATORY
OUTCOMES

OUTCOME 3: MUNICIPAL DEVELOPMENT PROCESSES SUPPORT AND ENCOURAGE AGE-FRIENDLY HOUSING

Goals

1. Rezoning and permitting procedures are updated to support and encourage age-friendly development outcomes

Activities

1. Evaluate development application and permitting practices to streamline and prioritize projects that meet age-friendly objectives.

2. Develop incentive programs and criteria for projects that advance age-friendly objectives.

Outputs

1. Rezoning, development application, and permitting procedures are updated to reflect age-friendly community goals.

   Timeline: 2-5 years
   Level of Investment: $$$
   Measures: Procedures and processes are updated to incorporate standards, guidelines, and incentives for accessible and age-friendly developments.
   Lead Partner: local governments
   Key Stakeholders: legal advisors, parliamentarians, seniors, residents, developers, PIBC, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC

FIG. 13.3
MUNICIPAL
DEVELOPMENT
PROCESS
OUTCOMES

OUTCOME 4: TECHNICAL BUILDING REGULATIONS SUPPORT ACCESSIBLE RESIDENTIAL DESIGN

Goals

1. Building code accessibility requirements are updated to reflect changing demographic needs.

2. Local governments collaborate to request regional accessibility requirements as a local government variation or building code change based on local demographics and conditions.

Activities

1. Advocate for a local government variation to the *BC Building Code* relating to accessibility and visitability in Part 9 (residential) buildings.

2. Advocate for changes to the *BC Building Code* relating to accessibility and visitability in Part 9 (residential) buildings.

Outputs

1. Step code-style regulations for accessibility for both Part 3 and Part 9 buildings
   Timeline: 5+ years
   Level of Investment: $$$
   Measures: Application collectively submitted by local governments to Province of British Columbia for a local government variation or changes to the building code based on CSA standards for accessibility in residential developments.
   Lead Partner: coalition of local governments
   Key Stakeholders: legal advisors, building officers, developers, PIBC, AIBC, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC, building code consultants

FIG. 13.4
BUILDING REGULATORY OUTCOMES

OUTCOME 5: INCENTIVES ARE INTRODUCED TO ENCOURAGE THE INCLUSION OF VOLUNTARY ACCESSIBILITY AND/OR AGE-FRIENDLY FEATURES

Goals

1. Support the creation of affordable and accessible housing options that are appropriate for seniors.

2. Ensure widespread awareness of incentives, programs, and services that support seniors as they age in place.

3. Recognize and reward developers and owners who exceed minimal requirements for accessibility and age-friendliness and who advance municipal age-friendly objectives in their developments.

Activities

1. Develop partnerships between local governments, developers, citizens, non-profits, and housing organizations.

2. Develop a publication to ensure seniors are aware of tax incentives, renovation grants, and support services to help them age in place.

3. Introduce an accessibility award program for new developments to encourage developers to meet voluntary recommendations and offset any additional costs though increased marketing potential.

4. Introduce an educational program for developers and citizens on age-friendly features, including information on the BC Housing Owner-Builder Exam, visitability, adaptability, and accessibility standards requirements, and age-friendly garden and secondary suites.

Outputs

1. Formal and informal partnership activities are developed and promoted
Timeline: 2-5 years
Level of Investment: $$
Measures: Number of boards, committees, and events created.
Lead Partner: local governments, non-profits, and advocacy groups
Key Stakeholders: local governments, non-profits and advocacy groups, seniors, residents, housing organizations, developers

FIG. 13.5
INCENTIVE
OUTCOMES

OUTCOME 5: INCENTIVES ARE INTRODUCED TO ENCOURAGE THE INCLUSION OF VOLUNTARY ACCESSIBILITY AND/OR AGE-FRIENDLY FEATURES (CONTINUED)

2. Booklet is created and distributed, including contacts and information for local programs and services available to seniors.
   Timeline: 1-3 years
   Level of Investment: $
   Measures: Publication and distribution of information booklet.
   Lead Partner: local governments
   Key Stakeholders: business associations, service providers, health care providers, residents, non-profit organizations, citizens

3. Award program terms of reference and program outline are created
   Timeline: 1-3 years
   Level of Investment: $
   Measures: Development of awards program
   Lead Partner: local governments
   Key Stakeholders: local governments, developers, PIBC, AIBC, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC, seniors, persons with disabilities, senior and disability service providers, realtors, licensed building and home inspectors, university extension groups

4. Educational program on age-friendly housing and community features is created.
   Timeline: 2-5 years
   Level of Investment: $$
   Measures: Creation and delivery of educational program; change in number of applications meeting voluntary visitable and accessible standards.
   Lead Partner: Local governments
   Key Stakeholders: citizens, developers, BC Housing, Canadian Home Builder's Association, CRHC, UDI – BC, university extension groups

APPENDIX A
C A S E
S T U D I E S

HUMANITAS
INTERGENERATIONAL LIVING

AT A GLANCE

NAME Humanitas

LOCATION Deventer, Netherlands

LOCAL POPULATION 98,510

COMMUNITY TYPE Urban, Suburban, Semi-rural

END USER Assisted Living

CATEGORY Intergenerational Housing

LAUNCH DATE 2013

PROJECT SUMMARY

In 2012, the Dutch government ceased funding for continuing care spaces for all but the most impoverished seniors. As a result, the demand for all-inclusive, long-term care communities declined, leaving facilities like Humanitas struggling to stay afloat.

At the same time, the supply of student housing in the Netherlands was inadequate, with Amsterdam alone facing a shortage of almost 9,000 student beds. The Director of Humanitas saw a unique opportunity to benefit both students and seniors and proposed a program through which students could live, rent-free, at Humanitas in exchange for volunteering their time with the residents.

Research has demonstrated a direct correlation between social isolation and both mental decline and mortality in older adults. At Humanitas, students-in-residence are able to build authentic and meaningful relationships with the seniors. This innovative program shifts the focus of assisted living from care to connection and provides significant social, economic, and emotional benefits to both the seniors and students.

© istockphoto.com/vadimguzhva

AIMS AND OBJECTIVES

To create a warm, socially supportive environment for senior residents in exchange for rent-free living for post-secondary students. Humanitas considers the social and emotional well-being of its residents as important contributors to physical health. The project assumes a social, emotional, and physical return on investment.

CONTEXT

- Located in a walkable community, the ground floor offers amenities that are open to the public.
- Home to 60 elderly (55+) residents and 6 university students.

KEY FEATURES

- Rent-free living for students in exchange for 30 hours of volunteering with the seniors per month.
- All units are designed to be fully adaptable and accessible to prevent the formation of "islands of misery" as residents' needs change.
- Includes a vibrant ground floor that is open to the public, containing shops, a bar, atrium, and a sculpture garden.

WHAT YOU SHOULD KNOW

Building community goes beyond creating physical structures. Humanitas recognizes that meaningful social connections are key contributors to sustained physical and mental health and, therefore, prioritizes investment in intergenerational housing, community amenities, and meaningful opportunities for connection and interaction.

Humanitas operates under four key guiding principles:

- Seniors should be as autonomous as possible in all aspects of their lives. Too much care is considered to be as harmful as too little care because of skill atrophy.

- Seniors should have complete control over their decisions. Barring significant decreases in cognitive function, residents should have the right to make decisions about how and where they live.

- All ages and levels of care are combined in each ward in order to prevent the creation of "islands of misery" as people age and their health declines.

- Students, seniors, and staff are treated equally in all aspects of daily life within the care community.

IMPACT

- Improved overall health for seniors; helping prevent dementia, regulating blood pressure, and decreasing depression.
- Since its inception in 2012, two more intergenerational nursing homes have been founded in the Netherlands. Similar programs have since been launched in Lyon, France and Cleveland, USA.

RELEVANCE IN BC

- Providing spaces for students in seniors' facilities, as well as in private homes, could help ease the burden on students in a cost-prohibitive market, while providing social and emotional support to a growing senior population.
- Minimal to no impact on zoning under standard residential and commercial centre land use classifications. The mixed-use ground floor supports a walkable neighbourhood, which is generally encouraged by local OCPs.
- Potential for cross-disciplinary funding.

CHALLENGES

- Program must account for volatility of financial sources.
- Screening and trial periods are necessary to ensure a good fit between seniors and students.
- Requires "buy-in" and coordination between continuing-care providers, including Island Health, Universities, students, residents, and municipalities.
- Economies of scale to subsidize student housing make this model difficult to implement at a smaller-scale. These facilities may be better suited to more urban environments.

HELPFUL LINKS

https://www.citylab.com/equity/2015/10/the-nursing-home-thats-also-a-dorm/408424/

http://inhabitat.com/dutch-housing-model-lets-students-stay-at-a-senior-living-home-for-free/

https://www.ageofnoretirement.org/stories/jurrienmentink

https://intergenerationalhousing.wordpress.com/case-studies/deventer-netherlands

ECHO COTTAGES
ELDER COTTAGE HOUSING OPPORTUNITY

AT A GLANCE

NAME ECHO Cottages

LOCATION Various communities across the USA

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Supportive Living (Home-based Care)

CATEGORY Garden suite

LAUNCH DATE 1970s

PROJECT SUMMARY

As more and more seniors choose to remain in their communities as they age, municipalities around the world are faced with the challenge of housing and supporting an aging population. Over the last forty years, a number of backyard cottage-style solutions have been developed, ranging in complexity from prefabricated, tiny homes to fully-equipped medical cottages, complete with lifts, sensors, and automated monitoring and assistance features.

Elder Cottage Housing Opportunities, otherwise known as ECHO Cottages, are the result of a collaboration between architecture and medical professionals, as well as industry and community partners.

As a pre-fabricated and pre-equipped unit, ECHO Cottages can be installed in a family member's backyard and connected to existing sewer, water, and power lines. The prototypes and products encourage the creation of an affordable housing option that can be quickly and widely deployed.

Depending on zoning and other municipal regulations, these cottages can either be removed when no longer needed, or used as garden suites for adult children, guests, or tenants.

Kitchen: Would contain a small refrigerator, a microwave and a combined washer-dryer, along with such features as a timed medication dispenser.

Bathroom: Many "smart" devices can be installed, including a toilet that measures a person's weight, temperature and urine content.

Materials: The floor is a single, molded piece of a concrete-like composite that includes a shower drain. Metal studs attach to the floor. The exterior is vinyl siding.

Bedroom: The cottage can house only one person legally, but an additional bed can accommodate a visiting caregiver.

Dimensions

Eight-foot interior ceilings.

12 ft

24 ft

Some potential features

A **"virtual companion"** that would relay health-related messages ("It's time to take your medication") and play music, movies and games.

A **video system** that would monitor the floor at ankle level, so the patient would have privacy but a caregiver would know if there was a problem.

Pressurized ventilation that can keep airborne pathogens in (if the patient is quarantined) or keep outdoor air out (if a patient has a compromised immune system).

A **lift** attached to a built-in track in the ceiling, that would move a patient from bed to bathroom so the caregiver could avoid heavy lifting.

In addition to regular ambient light, **lighting at knee height** would line the walls, illuminating the floor. Tripping over objects on the floor is the most common cause of falls.

AIMS AND OBJECTIVES

- Provide families with the ability to directly participate in their loved one's care, while preserving privacy for both parties.
- Recognize that continuing care facilities are not the first choice of many seniors.
- Developed in response to the lack of appropriate, affordable, and accessible seniors housing, particularly in mature neighbourhoods.

CONTEXT

- Permitted throughout the USA and Australia.
- Prototype projects are taking place in Calgary, Alberta, led by researchers, students, and professionals from the University of Calgary.
- If developed as garden or laneway suites, these units could provide appropriate, long-term options for downsizing seniors.

KEY FEATURES

- Costs vary according to the degree of specialized equipment required, but can range from $75,000 to $125,000 for a pre-fabricated unit. Additional costs may be incurred for foundations, sewer, water, and power hook-ups.
- Units can be medically-equipped to support higher levels of care.
- Units are self-contained, prefabricated homes, between 400 and 800 sqft, and usually include a small kitchen, bathroom, bedroom, and living room.

WHAT YOU SHOULD KNOW

ECHO Cottages are best suited to communities where zoning bylaws accommodate alternative housing options, such as garden suites, granny flats, and laneway suites. These include both high-density areas with rental housing shortages and rural areas with large lots and minimal zoning requirements. Property owners with small or narrow lots may want to consider other options.

In some places, the cost of installing an ECHO Cottage may be offset slightly by "caregiver" tax credits, available to adults who provide ongoing care to a dependent relative. If permitted by local zoning bylaws, ECHO Cottages may be rented out and used to generate monthly income when no longer used by the aging family member.

Unfortunately, ECHO Cottages can be difficult and expensive to remove. Selling the unit and finding a service that is willing and able to haul the cottage away without damaging it may be a challenge in areas where ECHO Cottages are uncommon. The price of removal can add considerably to the overall cost of the unit.

IMPACT

- Medically-equipped cottages have begun to appear across the USA, in Australia, and in Canada.
- If approved as laneway or garden units, these suites could be rented, increasing the supply of affordable and accessible housing, while off-setting the initial investment.
- Units may be relocated or sold when no longer needed, allowing owners to recuperate some costs.

RELEVANCE IN BC

- Modular garden suites must meet the requirements of Canadian Standards Association (CSA) documents CAN/CSA-A277-08 (R2013) for modular housing or panelized component housing, and any requirements of the *BC Building Code.*
- Some local governments may require a temporary use permit (TUP) or an agreement between the owner of the principal dwelling and the municipality.
- Units typically require laneway access or adequate clearance from the principal dwelling to the side or rear property line.

CHALLENGES

- Units must be connected to existing sewer, water, and power lines and may require a foundation.
- Can be difficult for municipalities to monitor as "temporary units." Units would need to be approved as regular, permanent garden or laneway suites and meet all zoning and municipal regulations.
- Can be difficult and costly to remove.
- Restrictions on use may impact property values upon resale.

HELPFUL LINKS

http://shareably.co/backyard-granny-pods

http://www.echocottages.com

https://nextcity.org/daily/entry/calgary-housing-design-test-seniors-aging-in-place-architecture

http://www.medcottage.com/

https://www.caring.com/articles/echo-housing

https://www.cmhc-schl.gc.ca/odpub/pdf/65009.pdf?fr=1441901300719

MICROTRANSIT
RIDE-HAILING AND DIRECT TRANSIT SERVICES

AT A GLANCE

NAME Microtransit

LOCATION Various communities across Canada and the USA

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Families, Active Adults, Independent Living (Minor Support), Supportive Living (Home-based Care), Assisted Living

CATEGORY Transportation

LAUNCH DATE 2016

PROJECT SUMMARY

For a growing number of Canadians, transportation and mobility challenges can either enable, or prohibit participation in civic and community life. As older adults face declining physical and cognitive abilities as they age, many decrease the number of daily trips they take. This has the potential to contribute to social isolation and declining physical and mental health.

Numerous studies and trials are underway across the United States to experiment with the use of ride-hailing services as a supplement to public transit, whether through private services or under the umbrella of a private agency.

Models have been tested whereby microtransit fleets consist of driver-owned vehicles (Uber, Lyft, Via), as well as company-owned vehicles (Bridj). In both cases, companies and local governments have found it challenging to bring service costs down and/or subsidize microtransit costs for riders so that they are comparable with public transportation fares.

AIMS AND OBJECTIVES

- Meet the needs of older residents, supplementing local transit networks and making them more accessible to an aging population.
- Attempt to maintain fares that are competitive with local transit, or provide subsidies to riders and/or service providers.

CONTEXT

- Primarily tested in urban environments in US cities with high numbers of seniors.
- Services tested include Uber, Bridj, Chariot, Lyft, and Via.
- Florida's Pinellas Suncoast Transit Authority is experimenting with providing free all-day bus passes for riders who take Uber or local taxi companies to the bus stop.

KEY FEATURES

- Cities are experimenting with contracting microtransit start-ups under their own umbrella or subsidizing ride-hailing programs.
- Vehicles may be either driver or fleet-owned.
- Similar to handyDART services, microtransit provides a quasi-public shuttle service, either to transit stops or to local destinations, that services either individuals or unrelated groups along a responsive route.

WHAT YOU SHOULD KNOW

Transportation has been identified as a key issue for seniors living in BC communities. Microtransit systems have the potential to support BC Transit in meeting the transportation needs of local residents, particularly in underserviced areas.

1. Good transit can ease social isolation for seniors.

2. Good transit can connect seniors to medical care.

3. Good transit is safer than driving for people of all ages.

4. Appropriate transit options for seniors are lacking, particularly in rural communities.

5. Micro-transit has been identified as a potential alternative to multi-passenger shuttle buses. These ride-hailing services cannot, however, replace city-wide public transportation networks.

6. To be efficient, microtransit costs must be affordable to a majority of the population and, preferably, comparable to public transit fares.

IMPACT

- Ride-hailing and direct transit services have the potential to supplement public transit services, allowing seniors to more fully participate in their communities.
- Microtransit could be partially subsidized by local businesses and service centres. As a growing population, seniors represent a key target market to support businesses if access is ensured.
- Preliminary studies indicate that there may be an economic benefit to the support of microtransit systems.

RELEVANCE IN BC

- Microtransit services must comply with local laws and regulations relating to the provision of transportation.
- There is potential for collaboration and partnership with social clubs (Lions, Rotary, etc.), business associations, and extended care facilities.

CHALLENGES

- Booking Uber and similar ride-share services often requires a moderate level of computer or other technological literacy, otherwise additional staff may be needed.
- Microtransit providers need to partner with local transit agencies to fill gaps and prevent overlap.
- Ensuring affordable fares can be difficult to sustain in the absence of major subsidies.

HELPFUL LINKS

https://flipboard.com/@flipboard/-older-people-will-need-much-better-tran/f-42fb4f135c%2Fcitylab.com

http://transitcenter.org/wp-content/uploads/2017/08/ALL-AGES.pdf

https://www.citylab.com/transportation/2017/05/bridj-is-dead-but-microtransit-isnt/525156/

CONCRETE CHANGE
VISITABLE HOUSING

AT A GLANCE

NAME Concrete Change: Visitability

LOCATION USA, Canada

COMMUNITY TYPE Various

END USER Families, Active Adults, Independent Living, Supportive Living, Assisted Living

CATEGORY Accessible Building Design

LAUNCH DATE 1992

PROJECT SUMMARY

Visitability is a growing trend worldwide. The term refers to low-density, owner-occupied housing that has been designed in such a way that it can be lived in, or visited by, people who have mobility challenges, who struggle with steps, or who use wheelchairs or walkers.

Visitability is a movement to change home construction practices so that virtually all new homes, not merely those custom-built for occupants who currently have disabilities, offer a few, specific features that make the home easier for people with limited mobility to live in and visit.

According to the organization Concrete Change, a house is considered to be visitable when it meets three basic requirements:

- At least one zero-step entrance;
- Interior and exterior doors with a minimum of 860 mm (32 inches) of clear passage space; and
- At least one half bathroom on the main floor that can be accessed by a person in a wheelchair.

AIMS AND OBJECTIVES

- Ensure that new houses are built in such a way that they can be lived in, or visited by, a wide range of people, including those with mobility challenges.
- A home that is visitable benefits everyone: a parent with a stroller, a person carrying parcels, or a senior with mobility challenges.

CONTEXT

- The visibility movement focuses on newly-built houses rather than on renovations.
- The visibility movement in the USA focuses on laws and policies rather than education or voluntary initiatives. In Canada, visitability tends to be voluntary and provided as an educational resource.

KEY FEATURES

- Cost of visitability features is negligible, therefore desirable regulations do not involve added financial implications in terms of construction costs or government incentives.
- Visitability includes inclusion of three basic elements: one no-step entrance, wide doorways, and an accessible main floor bathroom. Voluntary efforts may include more features, but these are not required.

WHAT YOU SHOULD KNOW

An estimated 25% to 60% of all new houses will, at some point in time, be home to a resident with a long-term, severe mobility impairment. Unfortunately, an estimated 95% of new houses are constructed with steps at all exterior entrances.

According to Concrete Change (2012), the cost for incorporating basic visitability principles in new houses, including a zero-step entrance, and widened doorways, are as follows:

- One zero-step entrance into a house on a concrete slab: $0
- One zero-step entrance into a house with a basement: $250
- Five doors @ $2 more per door than typical builder doors: $10
- TOTAL: $10 (slab) to $260 (basement or crawl space)

Costs of Retrofitting
- Typical cost of widening one interior door: $700
- Typical cost of retrofitting and regrading to create a zero-step entrance: $3,300
- TOTAL: $6,800 for five interior doors and no-step entry alone

IMPACT

- The success of the visitability movement is due to its simplicity of requirements, rigorous prioritization, and insistence on application in all newly-built homes, rather than only in purpose-built homes.
- Over 900 visitable Habitat for Humanity homes have been built in Atlanta alone.
- Visitable homes ease isolation for residents and visitors by allowing people with physical limitations to visit the homes of friends, family and neighbours.

RELEVANCE IN BC

- Vancouver passed a bylaw in 2013 to enhance accessibility and adaptability of new homes. Similarly, Saanich includes visitability in its voluntary accessibility requirements.
- In other BC communities, visitability requirements are often voluntary. It is recommended that local governments request and encourage visitability features at pre-design phases when developers can incorporate requests with little or no cost implications.

CHALLENGES

- Mandatory visitability requirements are not currently supported under local government regulation.
- Local governments cannot require accessibility features that exceed *BC Building Code* requirements in private residential developments.

HELPFUL LINKS

https://visitability.org/about-visitability/

http://visitability.org/quick-guide-to-low-costs-of-visitability-vs-costs-of-no-change/

https://visitability.org/wp-content/uploads/2016/10/Vancouver-Announce-Spinal-Cord-13.pdf

http://www.saanich.ca/EN/main/local-government/development-applications/adaptable-housing.html

https://www.edmonton.ca/city_government/documents/PDF/home-for-life.pdf

https://www.cmhc-schl.gc.ca/odpub/pdf/68677.pdf

https://www.cmhc-schl.gc.ca/odpub/pdf/61943.pdf?fr=1421086550208

BABAYAGA HOUSE
COMMUNAL LIVING

AT A GLANCE

NAME Babayaga House

LOCATION Montreuil, France

LOCAL POPULATION 103,520

COMMUNITY TYPE Urban, Suburban

END USER Independent Living, Supportive Living

CATEGORY Intergenerational Housing, Cohousing, Communal Living

LAUNCH DATE 2012

PROJECT SUMMARY

Babayaga House is a self-managed social housing project located in Montreuil, a suburb on the east side of Paris. The project is managed by a community of dynamic female seniors who have chosen to maintain their independence through communal living. These women realized the need for an alternative model to medically-based, isolating settings which, they felt, promoted dependence. They developed a model that allowed them to maintain autonomy, while caring for each other and staying active within the local community.

The Babayagas constructed a six-storey building, consisting of twenty-five self-contained units. Twenty-one of these are adapted for the elderly, with four reserved for students to "maintain vitality" of the living environment and present opportunities for mentoring and social interactions. The building is located in the heart of Montreuil, close to public transportation, shops, and theatres.

To increase engagement with the community, Babayaga House offers volunteer opportunities and an open university that anyone from the surrounding community can attend.

© istockphoto.com/scanrail

AIMS AND OBJECTIVES

- To create a centrally-located, communal living option for senior women to live with, and care for, each other.
- To support senior women in remaining active politically, socially, and culturally.
- To provide a solution to social isolation in older adults, while allowing them to remain in their communities.
- Women care for one another without the assistance of medical staff.

CONTEXT

- Project cost nearly 4 million Euros ($5,900,000 CAD) and took 13 years to complete.
- The Babayagas approached the government to invest in construction. Since residents would not have to live in state-run homes later in life, nor would the project need to be staffed by government care workers, eight state agencies contributed a total of four million Euros for the construction of the home.

KEY FEATURES

- In 2016, Babayaga House was home to 21 women aged 66 through 89. Seven of the twenty-one residents are living at or below the poverty line.
- Residents occupy small, one-bedroom apartments and share a communal kitchen, living area, and washrooms.
- Residents are selected partly in relation to what they can contribute to the Babayaga community and pay an average of 420 Euros ($620 CAD) monthly for a 375 sqft studio apartment.

WHAT YOU SHOULD KNOW

Toronto's Baba Yaga Place

Intrigued by the success of the French Babayaga House, a group of Toronto seniors have started to think about creating a Canadian version of the housing model. To date, the interest list for the proposed Baba Yaga House exceeds 150 members and the group has applied for federal funding to undertake a feasibility study.

The Toronto residence will be open to all genders, but will maintain an intergenerational focus in order to provide social, cultural, and practical benefits to all residents.

Rather than constructing a new building, the group proposes repurposing an existing apartment building, which would be run as a non-profit co-operative. Residents will care for one another and, as additional care is required, the community will consider hiring health care providers and dedicating living space for them.

The Baba Yaga House is a response to a number of challenges that are commonly identified by seniors as they choose to age in place. These include:

- Informal caregivers (especially adult children and other family members) take on the burden of care.

- Public funding for professional caregivers is inadequate.

- The risks of social isolation and elder abuse increase as a senior becomes more dependent on others.

IMPACT

- Two similar projects are underway in Palaiseau and Bagneux, and other local governments are interested in following Montreuil's example.
- A Toronto cohousing group is experimenting with a similar model.
- The Babayaga model accommodates lower income women and seniors.
- A key tenet of all Babayaga communities is a commitment to sustainability. Repurposing buildings, living communally, and environmentally-responsible design are key.

RELEVANCE IN BC

- This model could be scaled and incorporated into existing residential communities to gently densify and meet the needs of aging residents.
- BC has a long history of co-operative housing and many municipalities have processes in place to assist applicants. In many cases, co-operative housing arrangements are permitted in multi-family zones and no additional zoning changes are required.

CHALLENGES

- As a rental model, these projects may be classified under the zoning bylaws as "rooming houses" and may be subject to additional regulations.
- Co-operative housing arrangements must be carefully developed and managed to ensure fairness and compliance with local government regulations.
- Rural and semi-rural locations may face additional challenges in terms of providing and accessing services.

HELPFUL LINKS

http://en.rfi.fr/france/20130305-babayagas-house

https://seniorplanet.org/senior-housing-alternatives-urban-cohousing-the-babayaga-way/

http://www.babayagaplace.ca/

http://canadianseniorcohousing.com/?page_id=1196

THE VILLAGE
VOLUNTEER SUPPORT NETWORK

AT A GLANCE

NAME Village to Village Network

LOCATION USA, Canada, Australia, Netherlands

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Independent Living, Supportive Living

CATEGORY Community and Social Support

LAUNCH DATE 2001

PROJECT SUMMARY

The Village to Village Network is a grassroots organization that has emerged in the last decade to organize non-medical, day-to-day support services for older adults. Villages are membership-driven organizations, run by both volunteers and paid staff, that support seniors in their efforts to remain in their homes as they age

The first Village was launched in Boston in 1999. Known as Beacon Hill, it proved that residents wanted to support each other and be part of an active community of seniors.

The Village Network is not a provider model, but rather a series of non-profit, volunteer organizations. Each is governed by a Board of Directors and operated either by a mix of paid staff and volunteers or solely by volunteers. Staff provide administrative oversight, coordination of service delivery, or other concierge type assistance that a member may require. Volunteers are a critical component of the Village concept, with many Village members themselves providing services to other members. Villages also work with preapproved, prescreened vendors to deliver services at pre-negotiated rates.

The Village model has proven to be so promising that over 200 villages have now sprung up across the United States and globally.

AIMS AND OBJECTIVES

- To provide a network of support that will enable seniors to remain in their homes for as long as they wish.
- To create a resident-driven, non-profit organization that provides services and referrals to seniors within their network.
- Provides an opportunity to give non-medical aid as well as receive it.

CONTEXT

- Villages have the greatest impact on seniors who are in good health.
- Villages serve as a liaison, connecting seniors with help from other able-bodied village members, approved contractors, or service providers.
- Typically, members can call as often as necessary for rides, minor handyman jobs, and home technology support.

KEY FEATURES

- Members pay an annual fee, which can range from $150 to $600 per year, in return for services such as transportation, yard work, minor house repairs, and bookkeeping.
- Where services are not provided directly through the Village, such as plumbers and other trades, vetted, discounted services are offered to seniors.
- Village Networks usually only have 1-2 paid employees who serve as a liaison to facilitate services.

WHAT YOU SHOULD KNOW

As a citizen-drive, volunteer-based movement, Village Networks can be arranged relatively quickly and inexpensively. The Village-to-Village Network offers five tips to get started:

1. Gather a group of people who are passionate about staying in their own homes through the Village concept. Ideally, interested persons will have expertise and time to share. Community meetings are a good way to find passionate people, and gain volunteers for the steering committee and other committees.

2. Research the demographics of the local community or area, gather reports or studies on aging or livable communities, determine the resources in your community, talk with local social service and government agencies.

3. Look at the websites of other Villages to see what they provide. Find Villages in communities with comparable populations and demographics for ideas on how to structure the program.

4. Meet with existing agencies and get feedback on the proposed Village model and how to work together.

5. Identify the geographic area the Village will serve. Is a Village Network in your area feasible? Does the community want it? Is there enough interest to sustain it?

IMPACT

- To date, there are over 200 Villages operating in the United States.
- Ocean View Neighbourhood Program, the first Village program of its kind in Canada, opened in Nova Scotia in 2016.
- Organizations such as helpfulvillage.com have added technology to the Village movement in order to support the work of local organizations and volunteers.

RELEVANCE IN BC

- This model has potential to assist seniors who choose to remain in their homes, particularly in semi-rural or rural areas where access to local amenities may be limited, but where communities are socially connected.
- May offer significant benefits in terms of ride-sharing or transportation options.

CHALLENGES

- Village organizations tend to exist in more affluent neighbourhoods, though some are making attempts to subsidize fees for lower income members.
- Recruiting members to join may be a barrier since the concept may be unfamiliar or undesirable to some.
- Ensuring an adequate revenue flow, particularly in the early stages, can be a major barrier to the sustainability of Village organizations.
- Villages can be difficult to manage and coordinate.

HELPFUL LINKS

https://seniorplanet.org/video-of-the-week-it-takes-villages/

http://www.helpfulvillage.com/the_village_movement

https://assets.aarp.org/rgcenter/ppi/liv-com/fs177-village.pdf

http://www.aarp.org/home-garden/livable-communities/info-04-2011/villages-real-social-network.html

http://www.aarp.org/home-garden/livable-communities/info-09-2010/villages_take_root_around_virginia.html

http://www.vtvnetwork.org/content.aspx?page_id=0&club_id=691012

http://www.ovnp.clubexpress.com/content.aspx?page_id=22&club_id=271397&module_id=203275

HARBOURSIDE
SENIORS' COHOUSING

AT A GLANCE

NAME Harbourside Cohousing

LOCATION Sooke, BC

LOCAL POPULATION 13,001

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Active Adult, Independent Living, Supportive Living

CATEGORY Intergenerational Housing, Cohousing, Communal Living

LAUNCH DATE 2016

PROJECT SUMMARY

In January 2013, eight households became the founding members of Harbourside, a seniors' cohousing community in Sooke, BC. Harbourside was developed as a cohousing community containing 31 housing units in 7 new buildings, including 3 duplexes, 3 fourplexes, and one 3-storey building with 13 units. An existing resort building was repurposed and renovated to serve as a common house and amenity space for residents.

Harbourside was developed with the mandate to be an owner-developed and managed strata that combines private dwellings with a supportive community. Cohousing developments are intended to enable residents to flourish through mutual support as they age in place.

Cohousing enables seniors to live both independently and interdependently through a practice of co-care. A grassroots model of community support, co-care can help reduce social isolation and promote positive, active aging as neighbours support one another. Co-care activities include running errands, driving, cooking, or social visits. In a cohousing community, giving and receiving co-care is entirely voluntary.

AIMS AND OBJECTIVES

- To be a neighbourhood of strata-titled housing that is affordable, environmentally friendly, and socially and culturally supportive.
- To foster cooperation, social connection, and affordability through design and mutual support, while respecting personal privacy.
- To develop non-profit communities that support seniors in their desire to age in place and participate in co-care activities within their communities.

CONTEXT

- Harbourside is located within a five-minute walk to groceries, concerts at the church, coffee shops, restaurants, a post office, bus stop, and a large municipal park.
- Cohousing is typically based on private, strata ownership, with a limited number of rental units available.
- Received a CMHC seed funding grant for $10,000, a no-interest seed funding loan for $10,000, and a proposal development funding loan for $50,000.

KEY FEATURES

- Harbourside has 31 units with five unique, compact floor plans, all with large south-facing decks and harbour views.
- The average unit size is approximately 850 sqft.
- Harbourside includes gardening space, a workshop, exercise room, art room, waterfront gazebo, and other common spaces.
- Harbourside includes a studio apartment renovated to serve as a "care suite" to support the needs of aging members.

WHAT YOU SHOULD KNOW

Planning, developing and constructing Harbourside Cohousing was a multi-year process. Initially proposed in 2010, a number of well-attended meetings were held to discuss the design, creation, and occupation of this type of community.

Key elements of the development process included:

- Founding members formed an LLC before proceeding with an offer to purchase the land for the cohousing community. The legal structure of the cohousing community is a critical decision of any cohousing group.

- The Harbourside LLC retained consultants to undertake feasibility studies and apply for rezoning.

- Members agreed to a formal membership structure, with each of the eight founding equity member households pledging shareholder loans of $20,000.

- Founding members agreed to a formal definition of "co-care," which outlined the degree to which people are involved in the care of their co-residents, including the capacity for assisted living.

- Developed an affordable housing policy and agreed to offer two below-market units.

- During construction, members developed strata bylaws, moorage agreements, rental agreements, a common house use plan, and a waste management plan.

IMPACT

- Seven cohousing communities have been completed in BC, with an additional six across Canada.
- This project has been met with great success and other cohousing projects are already underway across southern Vancouver Island.
- Below-market units are able to be offered because of cost savings from shared spaces and decreased costs resulting from members acting as their own non-profit developer.

RELEVANCE IN BC

- Typically cohousing groups in Canada choose strata title as it is easier to get financing than for co-operative or other structures.
- Precedent for cohousing developments exists in BC communities and many local governments seem open to working with residents to develop cohousing projects.

CHALLENGES

- Cohousing is not directly subsidized in Canada.
- Developments with seniors-only status have the potential to be challenged in court.
- May not be scalable to create smaller, infill developments.
- The *Strata Property Act* prohibits the strata corporation from restricting the owner from freely selling their strata lot which can make it difficult to ensure long-term seniors' housing.

HELPFUL LINKS

http://www.harbourside.ca

http://canadianseniorcohousing.com/?page_id=20

http://canadianseniorcohousing.com/?page_id=993

http://canadianseniorcohousing.com/?page_id=40

http://www.harbourside.ca/pdf/How%20is%20Cohousing%20different%20from%20a%20Coop.pdf

http://www.saanichpeninsulacohousing.com/

https://www.ted.com/talks/grace_kim_how_cohousing_can_make_us_happier_and_live_longer

BOWEN COURT
SENIORS' HOUSING CO-OPERATIVE

AT A GLANCE

NAME Bowen Island Seniors' Housing Co-operative

LOCATION Bowen Island, BC

LOCAL POPULATION 3,680

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Families, Active Adult, Independent Living

CATEGORY Co-operative Housing

LAUNCH DATE 1982

PROJECT SUMMARY

Bowen Court, an eighteen-unit seniors' housing co-operative, was established in 1982 on the outskirts of Snug Cove on Bowen Island, BC.

Canadians have been building and living in housing co-operatives since the 1930s. Members elect a Board of Directors from amongst themselves to manage the business aspects of the co-operative. Each member of the co-operative has one equal vote and members work together to keep their housing well-managed and affordable.

According to the Co-operative Housing Federation of British Columbia, a number of features are common to co-operative communities. These include:

- A co-operative is a legal association of members;
- Members own the co-operative and the co-operative owns the housing. Members do not own their individual units;
- Members work together to create a socially and economically viable co-operative community;
- Co-operative units are intended to be viewed as homes, not investments. It is emphasized that the goal of a co-op is security of tenure, not equity; and
- Co-operatives are, by nature, mixed-income communities.

© bishc.org

AIMS AND OBJECTIVES

- To provide an opportunity for partnership between community housing groups, private citizens, and governments.
- To provide security of tenure for people with a range of incomes.

CONTEXT

- Located within easy walking distance to amenities, including shops, pharmacy, medical services, post office, and a library.
- Public transit is available within close walking distance and connects to the ferry.
- Bowen Court is a seniors' housing co-op (age 55-85) for independent older adults. No medical care or assisted living support is available through the co-op.

KEY FEATURES

- Units are self-contained, one-storey row houses.
- A separate community building contains a lounge, recreation rooms, offices, and a guest suite.
- At Bowen Court, share purchases range from $1,000 for a 1 bedroom to $1,250 for a two bedroom. Subsidies are not available.

WHAT YOU SHOULD KNOW

According to the International Co-operative Alliance, there are seven key principles that guide housing co-operatives.

1. Open Membership: Co-operatives are open, without exception, to anyone who needs their services and freely accepts the obligations of membership.

2. Democratic Control: Co-operative members set policy, make decisions, and elect representatives. Each member has one vote.

3. Economic Participation: All members contribute fairly to their co-operatives, which they own in common.

4. Independence: Members remain in control of their co-operatives.

5. Co-operative Education: Co-operatives offer training to their members, directors and staff.

6. Cooperation Among Co-operatives: Co-operatives work together through local, national and international structures to serve their members.

7. Community: Co-operatives meet members' needs in ways that build lasting communities within and beyond each co-operative.

IMPACT

- Federal and provincial governments have funded various programs in the past to help Canadians create non-profit housing co-operatives. The co-operatives developed under these programs add to affordable housing stock.
- Housing co-operatives cost approximately 14% less to operate than municipal or private non-profit housing.

RELEVANCE IN BC

- There are currently more than 263 non-profit housing co-operatives comprising more than 14,700 units in British Columbia.
- The Co-operative Housing Federation of BC is currently working on a number of projects to help housing co-operatives become more sustainable through education, energy audits, and upgrades.

CHALLENGES

- Need for the federal government to recommit its support to low-income members of housing co-operatives where subsidies have ended, or will end.
- Currently, Quebec is the only government continuing to create non-profit co-operative housing.
- It can be difficult to obtain a mortgage as shareholders do not hold title to their unit.

HELPFUL LINKS

http://bishc.org/index.html

http://www.chf.bc.ca/what-co-op-housing

http://www.chf.bc.ca/faq

http://www.bclaws.ca/Recon/document/ID/freeside/00_99028_01

https://www.cmhc-schl.gc.ca/en/co/buho/gucoho/foruco/foruco_003.cfm

NEXTGEN HOUSES
MULTIGENERATIONAL LIVING

AT A GLANCE

NAME NextGen Houses: Lennar Home Within a Home

LOCATION USA

COMMUNITY TYPE Urban, Suburban, Semi-rural, Rural

END USER Families, Active Adult, Independent Living, Supportive Living

CATEGORY Multigenerational Housing

PROJECT SUMMARY

Lennar is a home builder in the United States that offers a home which has been specifically designed to support multigenerational living. The "Home Within a Home" floor plan incorporates a separate dwelling unit, including a kitchenette, single car garage, and full bathroom, into the envelope of a single family home.

Marketed as a flexible space for personal or family use, this particular model is intended to allow seniors to live with adult children in a separate, but fully-incorporated, suite.

AIMS AND OBJECTIVES

- To provide space for family members to reside within the home of their children, parents, or relatives.
- To provide a flexible space that can be used either as a residence, or as additional living space for the owner.

CONTEXT

- In the context of American bylaws, the unit is designed to be classified as a "single family" dwelling rather than a dwelling containing an Accessory Dwelling Unit (ADU).
- The homes are intended to "blend in" with detached suburban neighbourhoods where infill is considered unsightly or undesirable.

KEY FEATURES

- A private living space, kitchenette, bathroom, and bedroom are incorporated into a ground floor suite in a single detached home.
- Homes are typically one storey, containing a 2,000+ sqft primary residence; 640 sqft lock-off suite, a total of 4 bedrooms + den, and 3 bathrooms.

WHAT YOU SHOULD KNOW

Lennar NextGen houses are designed and marketed in such a way that they skirt American land use regulations for Accessory Dwelling Units (ADUs) through incorporation of units into the envelope of a single detached home and by using only one utility meter for the home. However, properties built containing multiple units will eventually be used as multiple units, therefore, to be effective and defensible, NextGen style houses should be developed with legal secondary suites that meet all local bylaw and building code requirements.

This may require local governments to revisit policies and zoning bylaws in order to develop appropriate procedures and regulations to guide the development of these units.

IMPACT

- Can add to rental housing stock once suites are no longer needed by seniors.
- Can act as mortgage or income helpers for seniors and owners.
- Can be used as a caregiver suite for seniors living in the principal residence.

RELEVANCE IN BC

- Secondary suites are already permitted in many municipalities.
- There is the potential to encourage or incentivize accessibility features (i.e. waived application or permit fees) to encourage development of senior appropriate housing.

CHALLENGES

- Many of the designs appear to be car-centric, and access to public transportation may be overlooked.
- Privacy is a crucial aspect of quality of live. Integration of a secondary unit without proper separation features can lack privacy, noise separation, and individuality from the street front.
- Built as a part of the principal dwelling, rather than as a legal secondary suite, these units may not comply with building code and fire safety regulations as designed.

HELPFUL LINKS

https://www.lennar.com/nextgen

http://losangeles.cbslocal.com/2017/02/02/more-families-opt-for-next-gen-housing-to-save-money

https://www.cnbc.com/2016/02/08/under-one-roof-multigenerational-housing-big-for-builders.html

INFILL DESIGN TOOLKIT

DESIGN CATALOGUE

AT A GLANCE

NAME Infill Design Toolkit: Medium Density Residential Development

LOCATION Portland, OR

LOCAL POPULATION 639,863

COMMUNITY TYPE Urban, Suburban, Semi-rural

END USER Families, Active Adult, Independent Living, Supportive Living

CATEGORY Infill Housing

LAUNCH DATE 2008

PROJECT SUMMARY

In 2008, the City of Portland sponsored a design competition, which compensated designers for the creation of detailed design documents for the winning infill housing proposals. Following this competition, the City of Portland compiled an Infill Design Toolkit that contained a number of housing prototypes intended to help improve the design of medium-density infill housing projects, particularly in multi-dwelling zones. The prototypes highlight medium-density housing types and configurations that are suitable for common infill situations, meet City regulations and design objectives, and are feasible from a market perspective.

The toolkit illustrates solutions for common infill design challenges, such as balancing parking needs with pedestrian-friendly design and providing usable open space while achieving density goals. It posits a number of building designs which are compliant with local zoning bylaws, while providing a range of types, aesthetics, and sizes from which to choose.

This set of housing prototypes is intended to be the beginning of a collection that will be added to over time to expand the range of design solutions in the City of Portland.

© istockphoto.com/kevinruss

AIMS AND OBJECTIVES

To propose prototypes that:

- Meet City regulatory requirements;
- Are financially realistic;
- Minimize the prominence of personal vehicles, while providing at least one parking space per unit;
- Provide usable outdoor space;
- Respond to typical neighborhood contexts; and
- Include configurations conducive to subdivision and ownership housing.

CONTEXT

- The prototypes are based on common site configurations in different parts of the city and offer solutions for a range of different lot sizes.
- In certain cases, variances may be necessary for particular aspects of the prototypes to be approved.

KEY FEATURES

- To ensure that the housing prototypes illustrate "approvable" configurations that can meet the requirements of the various City regulatory agencies, proposals were reviewed by the following City bureaus:

  - Planning;
  - Development Services;
  - Office of Transportation;
  - Fire and Rescue; and
  - Environmental Services.

WHAT YOU SHOULD KNOW

The City of Portland's housing design catalogue is intended to serve as a problem solving tool to help improve the design of medium-density infill housing, particularly in multi-dwelling zones. The prototypes explore medium-density housing types and configurations that are suitable for common infill situations, meet City regulations and design objectives, and are feasible from a market perspective.

Intended to help broaden the range of housing types being built in Portland by presenting innovative configurations, these designs focus on arrangements conducive to ownership housing.

The prototypes are based on a range of site configurations common in different parts of the city, from the 50'-wide lots established along streetcar routes, to lots that are larger but disproportionately deep in the city's east end.

This set of housing prototypes is intended to be the beginning of a collection that will be added to over time to expand the range of design solutions available to developers and property owners.

IMPACT

- Could be used to encourage local property owners to build laneway or garden suites on their properties by decreasing the time and cost required for design development.
- Can ease the burden on local governments as approved plans will already comply with most municipal regulations.
- Can help ensure consistency in quality and safety of laneway and garden suites.

RELEVANCE IN BC

- A similar design competition could be held for the Capital Regional District, resulting in a design catalogue of appropriate infill housing types that meet typical local zoning and building code requirements.
- Some local governments already have zoning in place for small lot and infill developments, including garden and laneway suites. A locally-specific design catalogue could support this work.

CHALLENGES

- The CRD is comprised of a number of small local municipalities, each with different zoning bylaws, policies, and procedures.
- A wide range of community types, from urban to rural, mean that there would need to be a wide range of proposed options, with criteria to determine which buildings are appropriate in each community.

HELPFUL LINKS

https://www.portlandoregon.gov/bps/article/223709
https://www.portlandoregon.gov/bps/34024

APPENDIX B
COMMUNITY
ASSESSMENT
CHECKLISTS

PREPARATION

TASK	CHECK COMPLETED	STATUS (note activities conducted toward task completion, barriers, etc.)
Community assessment checklist template reviewed. Approach and purpose has been discussed with planning officer.	☐	
Identified individuals to assist with the community assessment process.	☐	
Consider forming a community assessment workgroup.	☐	
Development of a reporting structure and schedule.	☐	

INCLUSIVENESS OF THE ASSESSMENT

Check the boxes below to indicate representatives from key sectors that have been included in the assessment. Check boxes indicating level of involvement have been included in order to gauge levels of participation.

1. Seniors from the community are involved in the assessment process.

Check all that apply:
☐ Helped conduct the assessment
☐ Data collected from them
☐ Helped review the findings

Notes:

2. Representatives from the elder and continuing care sectors are involved in the assessment process.

Check all that apply:
☐ Helped conduct the assessment
☐ Data collected from them
☐ Helped review the findings

Notes:

3. Representatives from the health sector are involved in the assessment process.

Check all that apply:
☐ Helped conduct the assessment
☐ Data collected from them
☐ Helped review the findings

Notes:

INCLUSIVENESS OF THE ASSESSMENT (CONTINUED)

Check the boxes below to indicate representatives from key sectors that have been included in the assessment. Check boxes indicating level of involvement have been included in order to gauge levels of participation.

4. Professionals who address issues related to mental health, memory loss, and/or dementia are involved in the assessment process.

Check all that apply:
□ Helped conduct the assessment
□ Data collected from them
□ Helped review the findings

Notes:

5. Representatives from both the public and private sector have been involved in the assessment

Check all that apply:
□ Helped conduct the assessment
□ Data collected from them
□ Helped review the findings

Notes:

DATA ANALYSIS AND DISTRIBUTION

Check the boxes below to indicate analysis and distribution of the information collected. Check boxes indicating degree of distribution have been included in order to support monitoring and evaluation of policies and programs.

6. Results of community assessment have been analyzed, collated and compared to baseline figures.

Check all that apply:
□ First assessment: baseline prepared
□ Report prepared presenting baseline and current conditions (if different)
□ Relevant policies and programs are identified

7. Results of community assessment have been widely shared and distributed and comments have been collated based on feedback from the different audiences it has been shared with.

Check all that apply:
□ Available on the municipal website
□ Shared with news agencies
□ Presented at a public open house

8. Results of community assessment have been presented to Council as part of a policy or program update.

Check all that apply:
□ Presented to Council for information as a baseline
□ Presented to Council as part of a policy or program update

COMMUNITY ASSESSMENT CHECKLIST

Observer:	
Date:	
Community:	
Community Segment:	
Plans in Effect (OCP, Neighbourhood Plan, zoning overlay, etc):	
Temperature:	
Weather (rain, snow, frost, fog, etc):	

OUTDOOR SPACES AND BUILDINGS

	WHO INDICATOR	MEASURE
1	Public areas are clean and pleasant. Green spaces and outdoor seating are sufficient in number, well-maintained and safe.	**Street Trees** Street trees are planted at regular intervals along public sidewalks. □ Every 6-12 m □ On one side of the street □ On both sides of the street □ Street trees are well-maintained and trimmed to at least 2,440 mm clear height. □ Tree grates are flush with the ground, with openings no greater than 13 mm in diameter. **Benches** □ Benches are provided every 100-400 m. □ Benches are stable. □ Benches have a solid back rest. □ Benches have armrests. □ Benches have a minimum seat height of 450 mm. □ Benches provide colour contrast with the ground. □ Benches are clean and undamaged. □ Bench count: _____ **Public Spaces** □ Pedestrian pathways in park areas are a minimum of 1,500 mm in width. □ Recreational shared-use pathways are at least 3,500 mm in width. □ Areas of open space separate active areas from places to sit and observe through the use of pathways and landscaping elements. □ Outdoor fitness equipment is provided in parks and adjacent to public buildings. □ Snow is cleared in winter and anti-slip agents are used. □ New developments are oriented to maximize sunlight penetration into public spaces and impede prevailing winds. **Air Quality Health Index Value (Environment Canada)** □ Low Risk □ Moderate Risk □ High Risk □ Very High Risk

OUTDOOR SPACES AND BUILDINGS (CONTINUED)

WHO INDICATOR	MEASURE

2

Pavements are well-maintained, free of obstructions and reserved for pedestrians.

Pavements are non-slip, are wide enough for wheelchairs and have dropped curbs to road level.

Cycle paths are separate from pavements and other pedestrian walkways.

Sidewalks
Sidewalks are continuous and unobstructed.
- □ One side of the street
- □ Both sides of the street

□ Sidewalks are a minimum of 1,500 mm in width in residential areas.
□ Sidewalks are a minimum of 2,500 mm in width along retail and mixed-use streets.

Curb Cuts
□ Curb cuts are present.
□ Curb cuts have grooves or bumps.
□ Curb cut colour or material contrast with sidewalk.
□ Curb cuts have a broad apron.
□ Curb cuts align with crosswalks.

Materials
Sidewalks are constructed from:
□ Broom-finished Concrete
□ Asphalt
□ Brick
□ Gravel or dirt
□ Cobblestone

Condition
□ Sidewalks are level and in good condition.
□ Sidewalks are cracked or uneven.
□ Sidewalks are obstructed by street furniture, utility poles, or street trees.
□ Sidewalks are under repair.
□ Sidewalks are visually-consistent in terms of colour and texture.

Access
□ Street furniture, utility poles, and street trees are located in a "furniture zone" outside the path of travel.
□ Cycle paths are provided that are separate from pedestrian walkways.
□ Public sidewalks, bus stops, and curb ramps are not subject to flooding.

3

Outdoor safety is promoted by good street lighting, police patrols and community education.

Lighting
□ Streets are evenly lit.
□ Parking areas are open, well-lit, and provide a clear path to entrances.

Eyes on the Street
□ Residential buildings have porches or balconies that face the street.
□ Residential and commercial doors and windows face the street.
□ Outdoor dining areas are located on or open to the street.

OUTDOOR SPACES AND BUILDINGS (CONTINUED)

	WHO INDICATOR	MEASURE
4	Pedestrian crossings are sufficient in number and safe for people with different levels and types of disability, with nonslip markings, visual and audio cues and adequate crossing times. Drivers give way to pedestrians at intersections and pedestrian crossings.	**Crosswalks** □ Pedestrian crosswalks are marked: 　□ Painted Lines 　□ Zebra Stripes 　□ Raised Crosswalk 　□ Alternative Paving (brick, coloured concrete) 　□ Pedestrian Signals 　□ Pedestrian Crossing Sign 　□ Unmarked □ Marked pedestrian crosswalks are equipped with lighting, reflective crossing signs, and reflective surface markings. □ Crossing times require a walking speed of no more than 1.0 m/s. **Block Sizes** □ Block sizes do not exceed 150 m in length. □ Mid-block crossings are provided on blocks greater than 100 m in length.
5	Buildings are well-signed outside and inside, with sufficient seating and toilets, accessible elevators, ramps, railings and stairs, and non-slip floors.	**Signage** □ Signage is clear and well-lit, with large, high-contrast lettering.
6	Public toilets outdoors and indoors are sufficient in number, clean, well-maintained and accessible.	**Public Toilets** Public toilets are located in community parks, along waterfronts, in commercial areas, and areas with moderate to large numbers of pedestrians.
	Progress toward age-friendly outdoor spaces and buildings goals and objectives.	**Progress** □ Significant Progress (>75%) □ Moderate Progress (50-75%) □ Initial Progress (25-50%) □ Progress Needed (<25%) Notes:

HOUSING

WHO INDICATOR	MEASURE
7 Sufficient, affordable housing is available in areas that are safe and close to services and the rest of the community.	**Services and Amenities** Residential developments are located within 400-800 m of retail and service centres (check all that apply): □ Library □ Senior Centre or Community Centre □ Post Office □ Grocery Store □ Pharmacy □ Religious Institution □ Restaurant □ Bank □ Medical Clinic □ Convenience Store □ Other: □ Low density neighbourhoods permit small, retail and commercial uses at designated locations. □ Dwelling units are located a maximum of 400 m from open spaces. **Housing Types** A range of building types are available (check all that apply): □ Senior's Assisted Living □ Low-rise Multi-unit (less than 5 storeys) □ High-rise Multi-unit (greater than 5 storeys) □ Triplex and Fourplex □ Row House □ Duplex □ Single-detached □ Garden and Laneway Suites □ Secondary Suites □ Mobile Home □ Other: **Housing Tenure and Affordability** There are a range of housing tenures available (check all that apply): □ Ownership □ Rental □ Co-operative □ Cohousing □ The majority of seniors in the community are spending no more than 30% of their income on housing (Statistics Canada).

HOUSING (CONTINUED)

WHO INDICATOR	MEASURE
8 Sufficient and affordable home maintenance and support services are available. Home modification options and supplies are available and affordable, and providers understand the needs of older people.	**Maintenance** ☐ Dwelling units appear to be well-maintained. ☐ Properties appear to be well-maintained. ☐ Local businesses offer home maintenance services. ☐ Home maintenance service providers offer discounts for seniors. ☐ A list of local service providers is available to seniors through the local business association or local government office.
9 Housing is well-constructed and provides safe and comfortable shelter from the weather. Interior spaces and level surfaces allow freedom of movement in all rooms and passageways. Public and commercial rental housing is clean, well-maintained and safe. Sufficient and affordable housing for frail and disabled older people, with appropriate services, is provided locally.	**Environmental Design** ☐ New developments are oriented to maximize sunlight penetration. ☐ Roof designs prevent falling ice, snow, and discharge of leaders onto entrances and walkways. ☐ Ramps and stairs are protected from ice and snow by a roof or canopy. ☐ Dwelling entrances are protected from rain, ice, and snow by a roof or canopy. **Neighbourliness** ☐ Fences and landscaping along front property lines are no higher than 1,200 mm. ☐ Dwelling units incorporate front porches, balconies, and landscaped areas that face the public street. **Legibility** ☐ Entrances to dwellings are easy to identify from the street. ☐ Dwelling units have clear addresses and distinguishable features. **Accommodation** ☐ Scooter parking is provided in residential buildings.
Progress toward age-friendly outdoor spaces and buildings goals and objectives.	**Progress** ☐ Significant Progress (>75%) ☐ Moderate Progress (50-75%) ☐ Initial Progress (25-50%) ☐ Progress Needed (<25%) Notes:

TRANSPORTATION

WHO INDICATOR	MEASURE
10 Complete and accessible information is provided to users about routes, schedules and special needs facilities. All city areas and services are accessible by public transport, with good connections and well-marked routes and vehicles. Specialized transportation is available for disabled people.	**Services and Amenities** ☐ Transit signage is clear and well-lit, with large, high-contrast lettering and graphics. ☐ Collector routes and on-demand options (HandyDART) are available.
11 Drivers stop at designated stops and beside the curb to facilitate boarding and wait for passengers to be seated before driving off. Transport stops and stations are conveniently located, accessible, safe, clean, well-lit and well-marked, with adequate seating and shelter.	**Transit Stop Locations** ☐ Transit stops are spaced 200-300 m apart in business districts and urban centres. ☐ Transit stop spacing in rural areas should not exceed 400 m. ☐ Transit stops are provided adjacent to grocery stores and locations where riders are likely to be carrying large or heavy items. ☐ Transit stops are located with level access to a majority of shops and services. **Transit Stop Amenities** ☐ Transit stops provide seating that is a minimum of 450 mm (18") in height. ☐ Transit stops provide shelter from the elements.
12 A voluntary transport service is available where public transportation is too limited. Taxis are accessible and affordable, and drivers are courteous and helpful.	**Microtransit** ☐ On-demand and volunteer transportation options are available. ☐ Partnerships exist with businesses and private groups to provide transportation to seniors.

TRANSPORTATION (CONTINUED)

WHO INDICATOR	MEASURE

Roads are well-maintained, with covered drains and good lighting. Traffic flow is well-regulated.	**Street Characteristics** □ Number of lanes: _____ □ One-way □ Two-way □ Bicycle Lane □ Dead end or Cul-de-sac
13 Roadways are free of obstructions that block drivers' vision. Traffic signs and intersections are visible and well-placed.	**Street Condition** □ Good □ Adequate, but with some concerns for persons with mobility challenges □ Poor
Parking and drop-off areas are safe, sufficient in number and conveniently located. **14** Priority parking and drop-off spots for people with special needs are available and respected.	**Parking Location** □ Designated accessible parking is located within 60 m of dwelling and retail entrances. □ On-street accessible parking is located immediately adjacent to curb cuts, ramps, or driveways. □ Parking leads to dwelling and retail entrances through a single, level pathway.
Progress toward age-friendly outdoor spaces and buildings goals and objectives.	**Progress** □ Significant Progress (>75%) □ Moderate Progress (50-75%) □ Initial Progress (25-50%) □ Progress Needed (<25%) Notes:

DEVELOPMENT ASSESSMENT CHECKLIST: PRE-APPLICATION/REZONING

Applicant:

Date:

Development Name:

Lot and Plan Number:

SITE AND BUILDING CONCEPT

	FEATURE	MEASURE
1	Housing is located close to services, transportation, and amenities.	**Building Location** The proposed residential development is located within 400-800 m of retail and service centres, including: □ Library □ Senior Centre or Community Centre □ Post Office □ Grocery Store □ Pharmacy □ Religious Institution □ Restaurant □ Bank □ Medical Clinic □ Convenience Store □ Other: □ The proposed development is located a maximum of 400 m from open spaces. □ The proposed development offers a level, paved walkway to a transit stop. □ Transit stops are located no more than 200 m from the proposed development.
2	Accessible and/or adaptable units are included in the proposed development.	**Degree of Accessibility** □ Percentage of units that are visitable: _____ □ Percentage of units that are adaptable: _____ □ Percentage of units that are accessible: _____ **Accessibility Type** □ Preliminary site grading is designed to accommodate no-step entry. □ Preliminary floor plans include a bathroom on the main floor. □ Preliminary floor plans consider circulation space requirements, including wider doors and hallways, straight-run stairs, and flexible spaces.
3	Affordable units are included in the proposed development.	Percentage of units that are affordable: _____ □ Studio □ 1 Bedroom □ 2 Bedroom □ 3+ Bedroom □ Secondary/Garden Suite (for single detached)
4	Parking	□ Designated accessible parking is located within 60 m of dwelling entrances. □ Parking leads to dwelling entrances through a single, level pathway.

DEVELOPMENT ASSESSMENT CHECKLIST: DEVELOPMENT APPLICATION

Applicant:

Date:

Development Name:

Lot and Plan Number:

DEVELOPMENT APPLICATION: VISITABLE DWELLING

	FEATURE	MEASURE
1	Access	**No-step Entrance** Residential development offers at least one no-step entrance (check all that apply). □ Front entrance □ Side entrance □ Rear entrance □ Garage entrance **Grading and Pathway** □ Site grading has been designed to support a no-step entry. □ Site grading does not exceed 1:20. □ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 920 mm in width. □ The pathway is designed with a stable, firm, and slip-resistant surface.
2	Doors and doorways	**Doors** □ All doorways provide a minimum 860 mm clear opening. **Thresholds** □ All doorways have flush thresholds not exceeding 13 mm in height.
3	Bathroom	**Bathroom Features** □ At least one three-piece bathroom is located on the main level. □ Bathroom has either a pocket or an outward-swinging door. □ Bathroom has a clear path of travel to the toilet of at least 810 mm wide.

DEVELOPMENT APPLICATION: ADAPTABLE DWELLING

	FEATURE	MEASURE
4	Access	**Building Entrance** □ Dwelling offers a no-step entrance at the front of the dwelling. □ Dwelling offers least one additional no-step entrance (check all that apply): 　□ Side entrance 　□ Rear entrance 　□ Garage entrance **Site and Pathway** □ Site grading has been designed to support a no-step entry. □ Site grading does not exceed 1:20. □ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 920 mm in width. □ The pathway is designed with a stable, firm, and slip-resistant surface. **Entrance** □ The entrance landing has a level area of at least 1,500 mm x 1,500 mm. □ The entrance is sheltered from rain and snow by an overhang.
5	Circulation	**Internal Circulation** □ Hallways have a minimum width of 1,060 mm. □ At least one bedroom offers a turn radius of 1,500 mm. □ Kitchen offers a turn radius of 1,500 mm. □ Ground floor of dwelling is all one level, with no steps between or within rooms.
6	Doors and Doorways	**Doors** □ All doorways provide a minimum 860 mm clear opening. **Thresholds** □ All doorways have flush thresholds not exceeding 13 mm in height.
7	Bathrooms	**Main Floor Bathroom** □ At least one three-piece bathroom is located on the main level. **Bathroom Features** □ Bathroom has either a pocket door or an outward-swinging door. □ Bathroom has a turn radius of at least 1,500 mm. **Bathroom Fixtures** □ Blocking is provided around toilets, behind towel bars, and in the bathtub/shower for future installation of grab bars.
8	Bedroom	**Main Floor Bedroom/Flex Room** □ At least one room that can be used as a bedroom is provided on the ground floor.
9	Storage Space	**Stacked Storage** □ Storage spaces are stacked in multi-storey dwellings to allow for the future installation of an elevator or lift.

DEVELOPMENT APPLICATION: ACCESSIBLE DWELLING

	FEATURE	MEASURE

10	Access	**Building Entrance**
		□ Dwelling offers no-step entrances at all building entrances.
		    □ Front entrance
		    □ Side entrance
		    □ Rear entrance
		    □ Garage entrance
		
		Site and Pathway
		□ Site grading has been designed to support a no-step entry.
		□ Site grading does not exceed 1:20.
		□ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 1,500 mm in width.
		□ The pathway is designed with a stable, firm, and slip-resistant surface.
		
		Entrance
		□ The entrance landing has a level area of at least 1,500 mm x 1,500 mm.
		□ The entrance is sheltered from rain and snow by an overhang.

11	Circulation	**Internal Circulation** □ Hallways have a minimum width of 1,500 mm. □ A turning radius of 1,500 mm is provided at all doors. □ All rooms provide a turning radius of 1,500 mm.
12	Doors and Doorways	**Doors** □ All doorways provide a minimum 860 mm clear opening. **Thresholds** □ All doorways have flush thresholds not exceeding 13 mm in height.
13	Bathrooms	**Main Floor Bathroom** □ At least one three-piece bathroom is located on the main level. **Bathroom Features** □ Bathroom has either a pocket door or an outward-swinging door. □ Bathroom has a turn radius of at least 1,500 mm. **Bathroom Fixtures** □ Grab bars are provided around toilets, behind towel bars, and in the bathtub/shower. □ Sink is accessible by a user in a wheelchair.
14	Bedrooms	**Main Floor Bedroom/Flex Room** □ At least one room that can be used as a bedroom is provided on the ground floor. **Bedroom Features** □ Bedrooms offer a turn radius of 1,500 mm. □ Bedrooms provide a minimum of 800 mm clear opening to closets.

DEVELOPMENT APPLICATION: ACCESSIBLE DWELLING (CONTINUED)

	FEATURE	MEASURE
15	Kitchen	**Layout** ☐ Kitchen offers a turn radius of 1,500 mm. ☐ Kitchen has a continuous counter between the stove and the sink.
16	Laundry	**Laundry** ☐ Side-by-side laundry is located on the ground floor.
17	Patio/ Balcony	**Patio/Balcony** ☐ Patio/balcony has a minimum of 800 mm clear doorway opening. ☐ Patio/balcony access has a threshold of no more than 13 mm. ☐ Patio/balcony offers a turn radius of 1,500 mm. ☐ Patio/balcony has a weather-protective covering.
18	Flooring	**Flooring** ☐ Flooring is slip-resistant and non-glare.
19	Windows	**Windows** ☐ Window sill height does not exceed 750 mm above floor. ☐ Window opening and locking mechanisms are no more than 1,170 mm above the floor.

DEVELOPMENT ASSESSMENT CHECKLIST: BUILDING PERMIT APPLICATION

Applicant:

Date:

Development Name:

Lot and Plan Number:

BUILDING PERMIT APPLICATION: VISIBLE DWELLING

	FEATURE	MEASURE
1	Access	**No-step Entrance** Residential development offers at least one no-step entrance (check all that apply). □ Front entrance □ Side entrance □ Rear entrance □ Garage entrance **Grading and Pathway** □ Site grading has been designed to a support no-step entry. □ Site grading does not exceed 1:20. □ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 920 mm in width. □ The pathway is designed with a stable, firm, and slip-resistant surface.
2	Doors and doorways	**Doors** □ All doorways provide a minimum 860 mm clear opening. **Thresholds** □ All doorways have flush thresholds not exceeding 13 mm in height.
3	Bathroom	**Bathroom Features** □ At least one three-piece bathroom is located on the main level. □ Bathroom has either a pocket or an outward-swinging door. □ Bathroom has a clear path of travel to the toilet of at least 810 mm wide.

BUILDING PERMIT APPLICATION: ADAPTABLE DWELLING

	FEATURE	MEASURE

4	Access	**Building Entrance**
		□ Dwelling offers a no-step entrance at the front of the dwelling.
		□ Dwelling offers least one additional no-step entrance (check all that apply):
		    □ Side entrance
		    □ Rear entrance
		    □ Garage entrance
		
		Site and Pathway
		□ Site grading has been designed to support a no-step entry.
		□ Site grading does not exceed 1:20.
		□ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 920 mm in width.
		□ The pathway is designed with a stable, firm, and slip-resistant surface.
		
		Entrance
		□ The entrance landing has a level area of at least 1,500 mm x 1,500 mm.
		□ The entrance is sheltered from rain and snow by an overhang.

5	Circulation	**Internal Circulation** □ Hallways have a minimum width of 1,060 mm. □ At least one bedroom offers a turn radius of 1,500 mm. □ Kitchen offers a turn radius of 1,500 mm. □ Ground floor of dwelling is all one level, with no steps between or within rooms.
6	Doors and Doorways	**Doors** □ All doorways provide a minimum 860 mm clear opening. □ Doors are equipped with lever-type hardware. **Thresholds** □ All doorways have flush thresholds not exceeding 13 mm in height.
7	Bathrooms	**Main Floor Bathroom** □ At least one three-piece bathroom is located on the main level. **Bathroom Features** □ Bathroom has either a pocket door or an outward-swinging door. □ Bathroom has a turn radius of at least 1,500 mm. **Bathroom Fixtures** □ Blocking is provided around toilets, behind towel bars, and in the bathtub/shower for future installation of grab bars. □ In at least one bathroom, plumbing is offset for the vanity to allow future vanity removal.
8	Bedrooms	**Main Floor Bedroom/Flex Room** □ At least one room that can be used as a bedroom is provided on the ground floor.

BUILDING PERMIT APPLICATION: ADAPTABLE DWELLING (CONTINUED)

	FEATURE	MEASURE
9	Storage Space	**Stacked Storage** ☐ Storage spaces are stacked in multi-storey dwellings to allow for the future installation of an elevator or lift.
10	Outlets and Switches	**Outlets and Switches** ☐ Light switches are located between 1,050 mm and 1,220 from the floor. ☐ Thermostats and electrical panels have no user functions higher than 1,220 mm from the floor. ☐ Electrical outlets, cable outlets, and telephone jacks are located no less than 450 mm from the floor. ☐ Wiring for a visual fire alarm system is installed in the living room.

BUILDING PERMIT APPLICATION: ACCESSIBLE DWELLING

	FEATURE	MEASURE
11	Access	**Building Entrance** ☐ Dwelling offers no-step entrances at all building entrances. 　☐ Front entrance 　☐ Side entrance 　☐ Rear entrance 　☐ Garage entrance **Site and Pathway** ☐ Site grading has been designed to support a no-step entry. ☐ Site grading does not exceed 1:20. ☐ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 1,500 mm in width. ☐ The pathway is designed with a stable, firm, and slip-resistant surface. **Entrance** ☐ The entrance landing has a level area of at least 1,500 mm x 1,500 mm. ☐ The entrance is sheltered from rain and snow by an overhang.
12	Circulation	**Internal Circulation** ☐ Hallways have a minimum width of 1,500 mm. ☐ A turning radius of 1,500 mm is provided at all doors. ☐ All rooms provide a turning radius of 1,500 mm.
13	Doors and Doorways	**Doors** ☐ All doorways provide a minimum 860 mm clear opening. ☐ All exterior doorways provide a minimum 915 mm clear opening. ☐ Two door viewers are provided at the unit entry at 1,050 mm and at 1,520 mm. ☐ All doors are equipped with lever-type hardware. **Thresholds** ☐ All doorways have flush thresholds not exceeding 13 mm in height.

BUILDING PERMIT APPLICATION: ACCESSIBLE DWELLING (CONTINUED)

	FEATURE	MEASURE
14	Bathrooms	**Main Floor Bathroom** ☐ At least one three-piece bathroom is located on the main level. **Bathroom Features** ☐ Bathroom has either a pocket door or an outward-swinging door. ☐ Bathroom has a turn radius of at least 1,500 mm. **Bathroom Fixtures** ☐ Lever-type faucets are installed. ☐ Grab bars are provided around toilets, behind towel bars, and in the bathtub/shower. ☐ Sink is accessible by a user in a wheelchair. ☐ A toilet with a screw-top lid is installed. ☐ Mirror is positioned to backsplash.
15	Bedrooms	**Main Floor Bedroom/Flex Room** ☐ At least one room that can be used as a bedroom is provided on the ground floor. **Bedroom Features** ☐ Bedrooms offer a turn radius of 1,500 mm. ☐ Bedrooms provide a minimum of 800 mm clear opening to closets. ☐ Closet shelves and rods are height-adjustable.
16	Kitchen	**Layout** ☐ Kitchen offers a turn radius of 1,500 mm. ☐ Kitchen has a continuous counter between the stove and the sink. **Features and Fixtures** ☐ Kitchen has a separate stove and oven. ☐ Lever-type faucets are installed. ☐ Cabinets are equipped with adjustable or pull out shelves and D-type handles. ☐ A grab edge is installed under counters. ☐ Task lighting is installed at sink, stove, and work areas. ☐ Pull-out work boards are installed at 810 mm above the floor. ☐ The sink is accessible by a user in a wheelchair.
17	Laundry	**Laundry** ☐ Side-by-side laundry is located on the ground floor.
18	Patio/ Balcony	**Patio/Balcony** ☐ Patio/balcony has a minimum of 800 mm clear doorway opening. ☐ Patio/balcony access has a threshold of no more than 13 mm. ☐ Patio/balcony offers a turn radius of 1,500 mm. ☐ Patio/balcony has a weather-protective covering.

BUILDING PERMIT APPLICATION: ACCESSIBLE DWELLING (CONTINUED)

	FEATURE	MEASURE
19	Flooring	**Flooring** ☐ Flooring is slip-resistant and non-glare. ☐ Carpet is firm, low-pile with cut pile of 13 mm or less.
20	Windows	**Windows** ☐ Window sill height does not exceed 750 mm above floor. ☐ Window opening and locking mechanisms are no more than 1,170 mm above the floor. ☐ Window hardware are easily operated with one hand and require little to no force.
21	Outlets and Switches	**Outlets and Switches** ☐ Telephone jacks are provided in all bedrooms. ☐ Duplex outlets are located beside telephone jacks. ☐ Light switches are located between 1,050 mm and 1,220 from the floor. ☐ Thermostats, intercoms, and electrical panels have no user functions higher than 1,220 mm from the floor. ☐ Electrical outlets, cable outlets, and telephone jacks are located no less than 450 mm from the floor. **Fixtures** ☐ All switches are rocker or paddle-type. ☐ Combination light switch and outlets are located at room entrances. ☐ One outlet in each bedroom is wired to a three-way switch at the room entrance. ☐ A visual fire alarm system is installed in the living room. ☐ At least one bedroom is connected to the fire alarm.
22	Legibility	**Visibility and Colour Contrast** ☐ Colour-contrasting signage is used for unit numbers. ☐ Colour-contrasting exit doors are provided. ☐ Colour-contrasting baseboards and door trim are provided. ☐ Colour-contrasting cabinet handles and edge strip on counter tops are provided.

HOUSING ACCESSIBILITY AWARD
PROGRAM CHECKLIST: BRONZE

Applicant:

Date:

Address:

LOCATION

Housing is located within 400 - 800 m of retail and service centres (check all that apply):

☐ Library
☐ Senior Centre or Community Centre
☐ Post Office
☐ Grocery Store
☐ Pharmacy
☐ Religious Institution
☐ Restaurant
☐ Bank
☐ Medical Clinic
☐ Convenience Store
☐ Other:

Open Spaces

☐ Housing is located a maximum of 400 m from open spaces.

BUILDING ACCESS

Housing offers at least one no-step entrance (check all that apply):

☐ Front entrance
☐ Side entrance
☐ Rear entrance
☐ Garage entrance

DOORS AND DOORWAYS

Doors

☐ All doorways provide a minimum 860 mm clear opening.

Thresholds

☐ All doorways have flush thresholds not exceeding 13 mm in height.

BATHROOM

Main Floor Bathroom

☐ At least one three-piece bathroom is located on the main level.

Bathroom Features

☐ Bathroom has either a pocket door or an outward-swinging door.
☐ Bathroom has a clear path of travel to the toilet of at least 810 mm wide.

BUILDING CODE

Accessibility Requirements

☐ Housing meets some *BC Building Code* standards for accessibility (if applicable).

HOUSING ACCESSIBILITY AWARD PROGRAM CHECKLIST: SILVER

Applicant:

Date:

Address:

LOCATION

Housing is located within 400 - 800 m of retail and service centres (check all that apply):

☐ Library
☐ Senior Centre or Community Centre
☐ Post Office
☐ Grocery Store
☐ Pharmacy
☐ Religious Institution
☐ Restaurant
☐ Bank
☐ Medical Clinic
☐ Convenience Store
☐ Other:

Open Spaces

☐ Housing is located a maximum of 400 m from open spaces.

Public Transportation

☐ Housing is located a maximum of 400 m from public transportation.

CIRCULATION

Internal Circulation

☐ Hallways have a minimum width of 1,060 mm.
☐ At least one bedroom offers a turn radius of 1,500 mm.
☐ Kitchen offers a turn radius of 1,500 mm.
☐ Ground floor of dwelling is all one level, with no steps between or within rooms.

BUILDING ACCESS

No-step Entrance

☐ Housing offers no-step entrance at the front of the dwelling.

At least one additional no-step entrance (check all that apply):

☐ Side entrance
☐ Rear entrance
☐ Garage entrance

Site and Pathway

☐ Site grading has been designed to support no-step entry.
☐ Site grading does not exceed 1:20.
☐ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 920 mm in width.
☐ The pathway is designed with a stable, firm, and slip-resistant surface.

Entrance

☐ The entrance landing has a level area of at least 1,500 mm x 1,500 mm.
☐ The entrance is sheltered from rain and snow by an overhang.

DOORS AND DOORWAYS

Doors

☐ All doorways provide a minimum 860 mm clear opening.

Thresholds

☐ All doorways have flush thresholds not exceeding 13 mm in height.

BATHROOM

Main Floor Bathroom

☐ At least one three-piece bathroom is located on the main level.

Bathroom Features

☐ Bathroom has either a pocket door or an outward-swinging door.
☐ Bathroom has a turn radius of at least 1,500 mm.

Bathroom Fixtures

☐ Blocking is provided around toilets, behind towel bars, and in the bathtub/shower for future installation of grab bars.
☐ In at least one bathroom, plumbing is offset for the vanity to allow future vanity removal.

BEDROOM

Main Floor Bedroom/Flex Room

☐ At least one room that can be used as a bedroom is provided on the ground floor.

WINDOWS

Windows

☐ Window sill height does not exceed 750 mm above floor.

BUILDING CODE

Housing meets most recognized standards for accessibility (check all that apply):

☐ BC Building Code accessibility standards for Part 3 buildings
☐ CSA standards for residential accessibility

PARKING

Parking

☐ Parking leads to dwelling entrance through a single, level pathway.

STORAGE

Stacked Storage

☐ Storage spaces are stacked in multi-level dwellings to allow for the future installation of an elevator or lift.

HOUSING ACCESSIBILITY AWARD
PROGRAM CHECKLIST: GOLD

Applicant:

Date:

Address:

LOCATION

Housing is located within 400 m of retail and service centres (check all that apply):

☐ Library
☐ Senior Centre or Community Centre
☐ Post Office
☐ Grocery Store
☐ Pharmacy
☐ Religious Institution
☐ Restaurant
☐ Bank
☐ Medical Clinic
☐ Convenience Store
☐ Other:

Open Spaces

☐ Housing is located a maximum of 200 m from open spaces.

Public Transportation

☐ Housing is located a maximum of 200 m from public transportation.

CIRCULATION

Internal Circulation

☐ Hallways have a minimum width of 1,500 mm.
☐ A turning radius of 1,500 mm is provided at all doors.
☐ All rooms provide a turning radius of 1,500 mm.

BUILDING ACCESS

No-step Entrance

☐ Housing provides no-step entrances at all building entrances.

Site and Pathway

☐ Site grading has been designed to support no-step entry.
☐ Site grading does not exceed 1:20.
☐ An accessible pathway from the public sidewalk to the residential development is provided and is a minimum of 1,500 mm in width.
☐ The pathway is designed with a stable, firm, and slip-resistant surface.

Entrance

☐ The entrance landing has a level area of at least 1,500 mm x 1,500 mm.
☐ The entrance is sheltered from rain and snow by an overhang.

DOORS AND DOORWAYS

Doors

☐ All interior doorways provide a minimum 860 mm clear opening.
☐ All exterior doorways provide a minimum 915 mm clear opening.
☐ Two door viewers are provided at the unit entry at 1,050 mm and at 1,520 mm.
☐ All doors are equipped with lever-type hardware.

Thresholds

☐ All doorways have flush thresholds not exceeding 13 mm in height.

BATHROOM

Main Floor Bathroom

☐ At least one three-piece bathroom is located on the main level.

Bathroom Features

☐ Bathroom has either a pocket door or an outward-swinging door.
☐ Bathroom has a turn radius of at least 1,500 mm.

Bathroom Fixtures

☐ Lever-type faucets are installed.
☐ Grab bars are provided around toilets, behind towel bars, and in the bathtub/shower.
☐ Sink is accessible by a user in a wheelchair.
☐ A toilet with a screw-top lid is installed.
☐ Mirror is positioned to backsplash.

BEDROOM

Main Floor Bedroom/Flex Room

☐ At least one room that can be used as a bedroom is provided on the ground floor.

Bedroom Features

☐ Bedrooms offer a turn radius of 1,500 mm.
☐ Bedrooms provide a minimum of 800 mm clear opening to closets.
☐ Closet shelves and rods are height-adjustable.

KITCHEN

Layout

☐ Kitchen offers a turn radius of 1,500 mm.
☐ Kitchen has a continuous counter between the stove and the sink.

Features and Fixtures

☐ Kitchen has a separate stove and oven.
☐ Lever-type faucets are installed.
☐ Cabinets are equipped with adjustable or pull out shelves and D-type handles.
☐ A grab edge is installed under counters.
☐ Task lighting is installed at sink, stove, and work areas.
☐ Pull-out work boards are installed at 810 mm above the floor.
☐ The sink is accessible by a user in a wheelchair.

STORAGE

Stacked Storage

☐ Storage spaces are stacked in multi-level dwellings to allow for the future installation of an elevator or lift.

LAUNDRY

Laundry

☐ Side-by-side laundry is located on the ground floor.

HOUSING ACCESSIBILITY AWARD
PROGRAM CHECKLIST: GOLD (CONTINUED)

PATIO/BALCONY

Patio/Balcony

☐ Patio/balcony access has a threshold of no more than 13 mm.

☐ Patio/balcony offers a turn radius of 1,500 mm.

☐ Patio/balcony has a weather-protective covering.

☐ Patio/balcony has a minimum of 800 mm clear doorway opening.

FLOORING

Flooring

☐ Flooring is slip-resistant and non-glare.

☐ Carpet is firm, low-pile with cut pile of 13 mm or less.

WINDOWS

Windows

☐ Window sill height does not exceed 750 mm above floor.

☐ Window opening and locking mechanisms are no more than 1,170 mm above the floor.

☐ Window hardware are easily operated with one hand and require little to no force.

OUTLETS AND SWITCHES

Outlets and Switches

☐ All switches are rocker or paddle-type.

☐ Telephone jacks are provided in all bedrooms.

☐ Duplex outlets are located beside telephone jacks.

☐ Light switches are located between 1,050 mm and 1,220 mm from the floor.

☐ Thermostats, intercoms, and electrical panels have no user functions higher than 1,220 mm from the floor.

☐ Electrical outlets, cable outlets, and telephone jacks are located no less than 450 mm from the floor.

☐ Combination light switch and outlets are located at room entrances.

☐ One outlet in each bedroom is wired to a three-way switch at the room entrance.

☐ Wiring for a visual fire alarm system is installed in the living room.

☐ At least one bedroom is connected to the fire alarm.

LEGIBILITY

Visibility and Colour Contrast

☐ Colour-contrasting signage is used for unit numbers.

☐ Colour-contrasting exit doors are provided.

☐ Colour-contrasting baseboards and door trim are provided.

☐ Colour-contrasting cabinet handles and edge strip on counter tops are provided.

PARKING

Parking

☐ Parking leads to dwelling entrance through a single, level pathway.

BUILDING CODE

Housing meets or exceeds recognized standards for accessibility (check all that apply):

☐ *BC Building Code* accessibility standards for Part 3 buildings

☐ CSA standards for residential accessibility

COST BREAKDOWN FOR HOUSING ACCESSIBILITY

Benchmark House Construction Cost

Building Area: 186sm (2,000 sf)

Construction Cost/sm: 2,000/sm

Construction cost : $372,000

VISITABLE HOUSING
Based on District of Saanich Voluntary Guidelines

Assumptions:
Single Detached, 2 Storey Residence, No basement
Adaptable for Entire House Accessibility

FEATURE	GUIDELINE	NEW CONSTRUCTION MODIFICATION	COSTS	RENOVATION MODIFICATION	COSTS
Access	At least one no-step entrance	None	$ -	Regrade site	$ 5,000
Doors and doorways	Minimum 860mm clear opening for all doorways	5 wider doors	$ 250	widen 5 doors and frames	$ 3,500
Bathroom	Three-piece bathroom on main level	None	$ -	None	$ -
Construction premium for creating adaptable housing			**$ 250**		**$ 8,500**
Cost premium % based on $372,000 base construction value			0.07%		2.28%

ADAPTABLE HOUSING
Based on District of Saanich Voluntary Guidelines

Assumptions:
Single Detached, 2 Storey Residence, No basement
Adaptable for Entire House Accessibility

FEATURE	GUIDELINE	NEW CONSTRUCTION MODIFICATION	COSTS	RENOVATION MODIFICATION	COSTS
Access	At least one no-step entrance with overhang	Add overhang	$ 5,000	Add overhang and regrade site	$ 10,000
Circulation	Hallways have minimum width of 1060mm	None	$ -	None	$ -
	No steps between, or within, rooms	None	$ -	None	$ -
	Turning radius of 1500mm in at least one bedroom and kitchen	+ 5sm of area	$ 8,000	+ 5sm of new area	$ 10,000
Doors and doorways	Minimum 860mm clear opening for all doorways	10 wider doors	$ 500	Widen 10 doors and frames	$ 7,000
	Maximum thresholds 13mm	None	$ -	None	$ -
	Lever-type door hardware (based on 10 doors)	Premium for hardware	$ 500	Premium for hardware	$ 1,000
Bathrooms	At least one bathroom on main level that is accessible (1500mm turning radius)	None	$ -	4sm modify existing space	$ 4,800
	Three-piece bathroom on main level	None	$ -	None	$ -
	Blocking in all bathrooms around toilets, tub/shower, and behind towel bars	Add blocking for grab bars	$ 200	Add blocking for grab bars	$ 500
Bedroom	A room that can be used as a master bedroom on main level	None	$ -	Convert 12sm to bedroom	$ 14,400
Outlets and switches	Rocker/paddle-type light switches located between 1015mm and 1120mm from floor	None	$ -	None	$ -
	Thermostats and electrical panel has no user functions higher than 1220m from floor	None	$ -	None	$ -
	Electrical outlets, cable outlets, and telephone jacks located not less than 450mm from floor	None	$ -	None	$ -
Storage space	Stack storage space on all levels of a home one above the other to make it easier to install an elevator	None	$ -	3sm modify existing floor plan	$ 3,600
Construction premium for creating adaptable housing		**$ 14,200**		**$ 51,300**	
Cost premium % based on $372,000 base construction value		3.82%		13.79%	

ACCESSIBLE HOUSING
Based on District of Saanich Voluntary Guidelines

Assumptions:

Single Detached, 2 Storey Residence, No basement

Entire House Accessibility

FEATURE	GUIDELINE	NEW CONSTRUCTION MODIFICATION	COSTS	RENOVATION MODIFICATION	COSTS
Building access	1:20 max graded path	None	$ -	Regrade site	$ 5,000
	1500mm wide path	+ 3.6sm of path	$ 324	+ 9sm (replace path)	$ 1,080
	At least one no-step entrance with overhang	Add overhang	$ 5,000	Add overhang	$ 5,000
Circulation	Corridors have minimum width of 1500mm (5ft)	+ 1.8sm of area	$ 2,880	3.6sm modify existing space	$ 8,280
	Turning radius of 1500mm is provided at entry doors	+ 0.75sm of area	$ 1,500	+1.25sm of area	$ 2,500
	Turning radius of 1500mm in at least one bedroom and kitchen	+ 5sm of area	$ 8,000	+ 5sm of area	$ 10,000
Doors and doorways	Minimum 860mm clear opening for all interior doorways	10 wider doors	$ 500	Widen 10 doors and frames	$ 7,000
	Minimum 915mm clear opening for all exterior doorways	None	$ -	Widen 3 doorways	$ 3,000
	Lever-type door hardware (based on 10 doors)	Premium for hardware	$ 500	Premium for hardware	$ 1,000
	Two door viewers at 1050mm and 1520mm at unit entry	1 extra viewer	$ 50	1 extra viewer	$ 50
Flooring	Firm, low pile carpet with cut pile of 13mm or less	None	$ -	Replace 50sm with new carpet	$ 2,250
	Non-glare kitchen flooring	None	$ -	Replace 18sm with new tile	$ 3,600
	Slip-resistant flooring in bathrooms and all common areas	None	$ -	Replace 20sm with new flooring	$ 2,000
Windows	Window sill height does not exceed 750mm above floor	None	$ -	Replace 10 windows/hardware Adjust 10 opening/ repair cladding	$ 10,000
	Window opening/locking mechanism does not exceed 1170mm above floor	None	$ -		
	Easily-operated window hardware	None	$ -		

ACCESSIBLE HOUSING (CONTINUED)
Based on District of Saanich Voluntary Guidelines

Assumptions:

Single Detached, 2 Storey Residence, No basement

Entire House Accessibility

FEATURE	GUIDELINE	NEW CONSTRUCTION MODIFICATION	COSTS	RENOVATION MODIFICATION	COSTS
Outlets and switches	Rocker or paddle-type light switches	None	$ -	Replace 20 switches	$ 700
	Telephone jacks in all bedrooms	None	$ -	Add 3 jacks + repair	$ 300
	Duplex outlets beside telephone jacks	None	$ -	Add 3 outlets + repair	$ 300
	Wall-mounted thermostats, intercoms and electrical panels installed such that no user functions are higher than 1220mm from floor	None	$ -	None	$ -
	Combination light switch and outlet at room entrances	None	$ -	Add 10 outlets + repair	$ 1,500
	One outlet in bedroom wired to a three-way switch at room entrance	Wire (3) 3 way outlet	$ 60	Wire (3) 3 way outlet + repair	$ 450
	Wiring + visual alarm system in living room	Wire + alarm	$ 220	Wire + alarm + repair	$ 350
	One bedroom connected to fire alarm	Wire + alarm	$ 220	Wire + alarm + repair	$ 350
Kitchen	Continuous counter between stove and sink	None	$ -	None	$ -
	Lever-type sink faucets	None	$ -	Replace Faucets	$ 300
	Adjustable shelves in all cabinets	None	$ -	Add adjustable shelves	$ 200
	D-type cabinet handles	None	$ -	Replace handles	$ 200
	Grab edge under counters	None	$ -	None	$ -
	Task lighting at sink, stove, and work areas	Add 3 task lights	$ 300	Add 3 task lights + repair	$ 600
	Pull-out work boards at 810mm height	None	$ -	Replace cabinet	$ 500
	Pull-out cabinet shelves	None	$ -	Modify cabinet through hardware	$ 1,000
	Separate stove and oven	Upgrade stove/oven	$ 1,000	Replace stove/oven + repair	$ 3,000
	Removable base under sink	Premium cabinet	$ 200	Replace existing with premium cabinet	$ 600
Bathrooms	1500mm turning radius in at least one bathroom	None	$ -	4sm modify existing space	$ 4,800
	Lever-type faucets	None	$ -	Replace faucet	$ 200

ACCESSIBLE HOUSING (CONTINUED)
Based on District of Saanich Voluntary Guidelines

Assumptions:
Single Detached, 2 Storey Residence, No basement
Entire House Accessibility

FEATURE	GUIDELINE	NEW CONSTRUCTION MODIFICATION	COSTS	RENOVATION MODIFICATION	COSTS
Bathrooms (Continued)	Sliding door or out-turning door at bathroom entry	None	$ -	Replace door - new swing	$ 200
	In at least one bathroom: offset plumbing for vanity, provision for vanity sink removal; height-adjustable shower head	None	$ -	Replumb, replace vanity and shower head	$ 2,000
	¾" plywood sheathing in bathroom for solid blocking	Add blocking for grab bars	$ 200	Add blocking for grab bars	$ 500
	Screw-top toilet lid	Premium on toilet	$ 50	Replace with premium toilet	$ 300
	Mirror positioned to backsplash	None	$ -	Relocate mirror	$ 50
Bedrooms	Height-adjustable closet shelves and clothes rod	None	$ -	Add closet organizer	$ 500
	Minimal 800mm clear opening to closet	None	$ -	None	$ -
	1500mm turning radius in one bedroom	None	$ -	None	$ -
	A room that can be used as a master bedroom on main level	None	$ -	Convert 12sm to bedroom	$ 14,400
	Manoeuvring room between bed and closet	None	$ -	None	$ -
Patio / Balcony	Patio/balcony access has minimal threshold	None	$ -	Remove threshold + modify door/opening	$ 1,000
	800mm clear doorway opening	None	$ -	None	$ -
	1500mm turning radius on patio/balcony	None	$ -	None	$ -
	Weather-protected covering	Add covering	$ 1,200	Add covering + repair	$ 2,000
Visibility and Colour Contrast	Colour contrasting signage (i.e., house numbers)	None	$ -	New signage	$ 50
	Colour contrasting exit doors	None	$ -	Paint doors	$ 50
	Colour contrasting baseboards and door trim	None	$ -	Paint trim throughout	$ 200
	Colour contrasting cabinet handles and edge strip on counter tops	None	$ -	Add counter edging	$ 200
Laundry	Side-by-side laundry in home	None	$ -	None	$ -
Construction premium for creating adaptable housing		**$ 22,204**		**$ 97,560**	
Cost premium % based on $372,000 base construction value		5.97%		26.23%	

GLOSSARY

Adaptable Design: A development that is easily renovated to create an accessible environment. Adaptable design generally incorporates the structural considerations necessary for future upgrades, including reinforced walls, widened passageways, and orientation of stairs and openings.

Affordable Housing: Defined as housing which has a mortgage payment or rent that does not exceed 30% of income for low-to-moderate income households having an income that is 80% or less than the median household income for the community, and may include low income subsidized housing administered by the municipality, BC Housing, Capital Region Housing, or other non-profit housing societies in the region.

Apartment: A residential use where a building or buildings on a single lot are used for three or more self-contained rental dwelling units.

Assisted Living: Residences that provide housing and a range of support services, including personalized assistance for seniors and persons with disabilities who can live independently but require help with daily activities. Assisted living residences do not provide direct professional nursing care. Assisted living units are licensed under the *Community Care and Assisted Living Act*.

Carriage House: Refers to a dwelling secondary in nature to a principal dwelling located in a detached, accessory building on a single lot.

Cohousing: An intentional community of private dwellings clustered around shared space. Cohousing communities define their collective approach to aging in community, including the limits of co-care that they are willing to provide for one another.

Complete Community: A place where it is possible for all citizens in a community to live, work, and enjoy daily life, regardless of ability, income, culture, or political ideologies through integrated land use planning, transportation planning, and community design.

Co-operative Housing: A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and

cultural needs through a democratically-controlled housing development. Members typically own a share of the co-op, but not the individual unit they live in.

Development Permit Area: Areas that have been designated as requiring issuance of a development permit prior to the commencement of development.

Duplex: A building which contains two principal dwelling units attached to each other, either side by side, back to front, or above and below, and the two units together have open space on all sides.

Fourplex: A building that contains four principal dwelling units attached to each other, and the four units together have open space on all sides.

Frail Seniors: Housing for seniors who need access to housing with on-going supports and services. Frail seniors are those who cannot live independently.

Garden Suite: Detached, self-contained residential dwellings located in the backyard of a property with a single-detached home as its primary use. Sometimes referred to as a "granny flat."

Granny Flat: Detached, self-contained residential dwellings located in the backyard of a property with a single-detached home as its primary use. Sometimes referred to as a "garden suite."

Ground-oriented Housing: Ground-oriented housing refers to single detached or multi-unit housing that is oriented towards or has direct access from the ground.

Housing Tenure: refers to the financial arrangements under which someone has the right to live in a house or apartment. The most common forms are tenancy, in which rent is paid to a landlord, and owner-occupancy.

Independent Seniors: Housing for seniors where minimal or no additional services are provided.

Infill Housing: Refers to the insertion of additional housing units into an existing neighbourhood. Infill housing can be provided as additional units built on the same lot, by dividing existing homes into multiple units, or by subdividing existing lots. Many municipalities have established guidelines for infill housing.

Laneway Housing: Detached, self-contained residential dwellings that are built into pre-existing lots, opening onto a back lane.

Mixed-use Development: A pedestrian-friendly development that blends residential, commercial, cultural, institutional, or entertainment uses.

Multi-unit Dwelling: A residential building that contains three or more dwelling units, and includes triplex, fourplex, townhouse, row houses, and apartment forms.

Older Adult: refers to a person who is aged 55 years and older. This term includes seniors.

Open Space: refers to "open to the sky" areas, including forests, woods, wetlands, lawns, front and back yards, landscaped areas, courtyards, public plazas, pathways, and playing fields.

Rent Assistance - Seniors: Housing subsidy to help make private market rents affordable for BC seniors with low to moderate incomes. Housing under this category includes the Shelter Aid for Elderly Renters (SAFER) program as well as other rent supplement units in the private market targeted towards seniors.

Row House: Side-by-side units, separated by party walls, each with direct access from grade and access to private outdoor space. The owners of row houses own not only the unit, but also the land below it. As a result, each unit requires a separate water and sewer hook-up. Sometimes used interchangeably with "townhouse."

Secondary Suite: An accessory self-contained dwelling unit with cooking facilities, located in a single-detached home.

Senior: Refers to a person who is aged 65 or older.

Single Detached Dwelling: A residential dwelling not attached to any other dwelling or structure (except its own garage, shed, or secondary suite). A single detached dwelling has open space on all sides and has no dwellings other above it or below it (except, in some cases, a secondary suite).

Supportive Housing: Housing with a combination of support services, including a private space with a lockable door; monitoring and emergency response; at least one meal per day; housekeeping and laundry; and recreational opportunities. Nursing and other health-related services are

delivered by the local health authority. Supportive units may be owned and operated by private or not-for-profit housing providers.

Triplex: A building which contains three principal dwelling units attached to each other, and the three units together have open space on all sides.

Townhouse: A single building that is comprised of three or more dwelling units that are separated from one another by party walls extending from foundation to roof. Each dwelling unit has a separate and direct entrance from grade. The owners of townhouses own their dwelling unit and the townhouse development is built on shared property. As a result, only one sewer and water hook-up is required for the entire development. Sometimes used interchangeably with "row house."

Universal Design: refers to broad-spectrum ideas meant to produce buildings, products, and environments that are inherently accessible to everyone, including older people, people with disabilities, and people without disabilities.

BIBLIOGRAPHY

PAGE	IMAGE SOURCE
vi	DGLimages. *Senior Woman Looking out Window.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/senior-woman-looking-out-window-gm602318816-103528737
2	Kristin Agnello, 2017.
6	jeancliclac. *Generation.* [Photograph] (2009). Image used under license from iStock. https://www.istockphoto.com/ca/photo/generation-gm92670026-1428731
15	Kristin Agnello, 2017.
19	Infographic by Kristin Agnello. Adapted from Ball, *Livable Communities,* p. 47.
27	Ingelhart, Robert. *Young Couple Sitting on Porch of New Home at Twilight.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/young-couple-sitting-on-porch-of-new-home-at-twilight-gm619768380-108172719
32	CasarsaGuru. *Seniors In Retirement Community Drawing And Coloring With The Help Of Therapist.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/seniors-in-retirement-community-drawing-and-coloring-with-the-help-of-therapist-gm871518534-145451823
42	LeonU. *Parliament Building, Victoria, Canada. .* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/parliament-building-victoria-canada-gm672253242-123124931
59	Lee, Kathryn Hatashita. *Vancouver's False Creek and Cherry Trees in Spring.* [Photograph] (2009). Image used under license from iStock. https://www.istockphoto.com/ca/photo/vancouvers-false-creek-and-cherry-trees-in-spring-gm89909256-7524328
64	iofoto. *Couple Grocery Shopping.* [Photograph] (2009). Image used under license from iStock. https://www.istockphoto.com/ca/photo/couple-grocery-shopping-gm93388321-6509642
65	Kristin Agnello, 2017.

IMAGE CREDITS

69   adogslifephoto. *Beautiful Home with Green Grass Yard.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/beautiful-home-with-green-grass-yard-gm639414496-115226527

71   ewg3D. *Old Town in Gdansk, Poland.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/old-town-in-gdansk-poland-gm855608896-140842165

73   Kyrylyuk, Volodymyr. *Apartment Buildings.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/apartment-buildings-gm645199404-116940071

75   buzbuzzer. *Large Luxury Retirement Habitations.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/large-luxury-retirement-habitations-gm183320144-15249981

77   hikesterson. *Beautiful Home Exterior at Night.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/beautiful-home-exterior-at-night-gm516389720-88967079

79   Peopleimages. *They'll Always Support Each Other.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/theyll-always-support-each-other-gm621995410-108803061

81   Onzeg. *Bathroom for Disabled.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/bathroom-for-disabled-gm638257640-114334651

84   russellbinns. *Senior Woman on Electric Scooter.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/senior-woman-on-electric-scooter-gm617362290-107221085

97   Boogich. *Travel Destination Old Montreal Canada Buildings with Snow in Winter.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/travel-destination-old-montreal-canada-buildings-with-snow-in-winter-gm508790570-85442073

120   PeopleImages. *Taking Care of Each Other in Old Age.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/taking-care-of-each-other-in-old-age-gm621995186-108802789

131   vadimguzhva. *Volunteer and Old People.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/volunteer-and-old-people-gm619393614-108006233

132   Eva-Katalin. *Together is Easier.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/together-is-easier-gm541978332-96931047

135   ECHO House. [Illustration] Image credited to Washington Post/N2Care. Retrieved August 26, 2017 from http://shareably.co/backyard-granny-pods/?utm_source=pulp&utm_medium=facebook&utm_campaign=parents

136   ShutterWorx. *Modern Bedroom.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/modern-bedroom-gm172401014-23390296

139   Highwaystarz-Photography. *Female Neighbor Giving Senior Woman A Lift In Car.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/female-neighbor-giving-senior-woman-a-lift-in-car-gm624701072-109842257

140   kali9. *Senior Man with Walker Exiting Shuttle Bus.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/senior-man-with-walker-exiting-shuttle-bus-gm185331731-19244677

143   chandlerphoto. *Twilight Exterior of Home.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/twilight-exterior-of-home-gm175196101-21900872

144   chandlerphoto. *Twilight Exterior of Home and Deck.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/twilight-exterior-of-home-and-deck-gm184357309-17342509

147   scanrail. *Modern Real Estate.* [Photograph] (2014). Image used under license from iStock. https://www.istockphoto.com/ca/photo/modern-real-estate-gm511138945-46492934

148   shapecharge. *Sharing a Meal with Old Friends.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/sharing-a-meal-with-old-friends-gm649145218-117937443

151   CasarsaGuru. *Caregiver Doing the Chores.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/caregiver-doing-the-chores-gm637496118-113732307

152   bowdenimages. *Repairman Fixing Cooker In Senior Couple's Kitchen.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/repairman-fixing-cooker-in-senior-couples-kitchen-gm171223721-20365134

155   Harbourside Cohousing. *Harbourside.* [Photograph] Canadian Co-housing Network. Retrieved November 30, 2017 from http://cohousing.ca/communities/bc/harbourside/

156   ollo. *Groundbreaking ceremony - German Autobahn A 643.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/groundbreaking-ceremony-german-autobahn-a-643-gm458469481-27226660

159   Bowen Court. [Photograph]. Bowen Island Seniors' Housing Cooperative. Retrieved November 2, 2017 from http://bishc.org/about.html

160   Rawpixel. *Family Planting Vegetable From Backyard Garden.* [Photograph] (2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/family-planting-vegetable-from-backyard-garden-gm671270794-122842581

163   hikesterson. *Beautiful Home Exterior.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/beautiful-home-exterior-gm514933200-88336737

164   Geber86. *Happy Family.* [Photograph] (2016). Image used under license from iStock. https://www.istockphoto.com/ca/photo/happy-family-gm528552736-93020767

167   Russ, Kevin. *New Modern Homes.* [Photograph] (2012). Image used under license from iStock. https://www.istockphoto.com/ca/photo/new-modern-homes-gm157282422-812838

168   Wiedemann, Ken. *Portland, Maine Rooftops.* [Photograph] (2013). Image used under license from iStock. https://www.istockphoto.com/ca/photo/portland-maine-rooftops-gm171149865-14674116

COVER   xavierarnau. *Businessman Standing Amidst Crowd Moving on Street.* [Photograph] (April 6, 2017). Image used under license from iStock. https://www.istockphoto.com/ca/photo/businessman-standing-amidst-crowd-moving-on-street-gm665506682-121241699
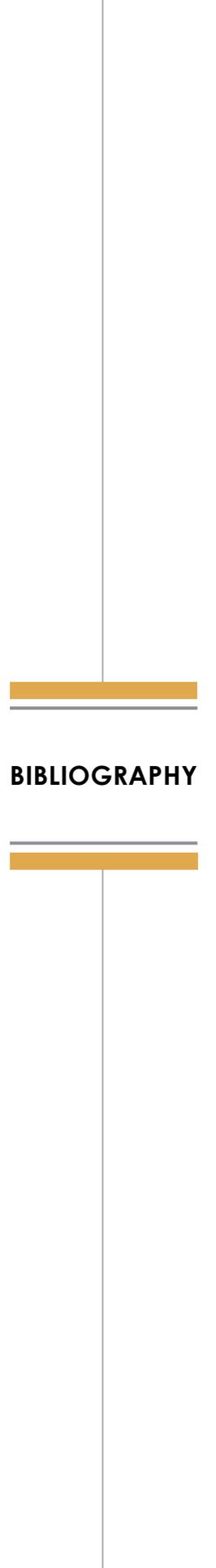
BIBLIOGRAPHY

LOCAL CONTEXT

Albert, Marika, Saanich Peninsula Housing Data Book Technical Report: Review and Analysis of Housing for the Saanich Peninsula. Report prepared for the Capital Regional District, August 2016. Accessed April 25, 2017. https://northsaanich.civicweb.net/document/22944/Presentation%20CRD%20Saanich%20Peninsula%20Houisng%20Data%20Bo.pdf?handle=AB8AFC18FD7942B292D4F0B3CD76785A

Albert, Marika, Saanich Peninsula Affordable Housing Needs Assessment Report: Companion Report to the Saanich Peninsula Housing Data Book Technical Report, Report prepared for the Capital Regional District, August 2016. Accessed April 26, 2017.   https://www.crd.bc.ca/docs/default-source/housing-pdf/housing-planning-and-programs/saanichpeninsulaaffordablehousingneedsassessmentsummaryreport.pdf?sfvrsn=2

BC Climate Action Toolkit. "Diverse Zoning Strategies for Diverse Communities." Accessed August 22, 2017. http://www.toolkit.bc.ca/diverse-zoning-strategies-diverse-communities#housing%20strategies

BC Healthy Communities. "Age-friendly Communities Recognition Award (Program)." BC Healthy Communities. Accessed August 12, 2017. http://bchealthycommunities.ca/afbc

Capital Regional District. Grant-In-Aid Application Completion Guide. September 2010. Accessed September 6, 2017. https://www.crd.bc.ca/docs/default-source/corporate-communications-pdf/application-guide-grants-in-aid.pdf?sfvrsn=fb9c95c9_0

City of Colwood. "Age-friendly Community Plan." 2016. Accessed August 12, 2017. https://www.colwood.ca/sites/default/files/plans-reports/documents/Colwood-Age-friendly-Community-Plan-v3-SR.pdf

City of Langford. "Langford Age-friendly Action Plan." Accessed August 12, 2017. http://www.langford.ca/assets/Documents~Library/Reports/Age-Friendly%20Action%20Plan%20-%20Final%20-footers%20removed.pdf

City of Vancouver. "Accessible Street Design." Accessed September 22, 2017. http://vancouver.ca/files/cov/AccessibleStreetDesign.pdf

Community Social Planning Council of Greater Victoria, Capital Region Housing Data Book & Gap Analysis. Report published by the Capital Regional District, August 2015. Accessed April 25, 2017. https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/capital-region-housing-data-book-and-gap-analysis-2015.pdf?sfvrsn=0

Cowichan Valley Regional District. "Age-friendly Communities." Accessed August 12, 2017. https://www.cvrd.bc.ca/2774/Age-Friendly

District of Oak Bay. "Draft Age-friendly Action Plan." Report prepared by City Spaces for the District of Oak Bay. January 2016. Accessed July 3, 2017. https://www.oakbay.ca/sites/default/files/municipal-services/Age%20Friendly%20Action%20Plan%20January%2015%202016.pdf

District of Saanich. "Global Age-friendly Cities Project." Report. Accessed October 1, 2017. http://www.saanich.ca/assets/Parks~Recreation~and~Culture/Saanich%20WHO%20Age%20Friendly%20Cities%20Report%20FINAL.pdf

District of Saanich. Older Adults Strategy and Implementation Plan: 2017-2022. District of Saanich Parks and Recreation. June 18, 2017. Accessed October 3, 2017. http://www.saanich.ca/assets/Parks~Recreation~and~Culture/Documents/OAS-Strategy-RevG%20June22.pdf

Government of British Columbia. "Age-friendly Communities." Ministry of Health, Province of British Columbia. September 24, 2015. Accessed October 07, 2017. http://www2.gov.bc.ca/gov/content/family-social-supports/seniors/about-seniorsbc/seniors-related-initiatives/age-friendly-bc/age-friendly-communities.

Government of British Columbia. Local Government Act. 2015. Accessed July 3, 2017. http://www.bclaws.ca/civix/document/id/complete/statreg/r15001_00

Government of British Columbia. "Role of Government." Housing and Tenancy: Local Governments. Accessed May 25, 2017. http://www2.gov.bc.ca/gov/content/housing-tenancy/local-governments/role-of-government

Islands Trust. "Age and Disability Friendly Community Planning." Last modified October 26, 2017. Accessed November 1, 2017. http://www.islandstrust.bc.ca/islands/local-trust-areas/north-pender/projects-initiatives/previous-projects/age-and-disability-friendly-community-planning/

Office of the Seniors Advocate. Seniors' Housing in B.C.: Affordable, Appropriate, Available. Report. May 2015. Accessed April 17, 2017. https://www.seniorsadvocatebc.ca/app/uploads/sites/4/2015/05/Seniors-Housing-in-B.C.-Affordable-Appropriate-Available.pdf

Township of Esquimalt. "Esquimalt Age-friendly Assessment." August 2016. Accessed June 2, 2017. https://www.esquimalt.ca/sites/default/files/docs/esquimalt_age-friendly_assessment_final.pdf

Union of British Columbia Municipalities. "2017 Age-friendly Communities Grant Program: Program and Application Guide." 2017. Accessed October 25, 2017. http://www.ubcm.ca/assets/Funding~Programs/LGPS/SHSI/afc-2017-program-guide.pdf

Wake, Tim, Saanich Peninsula Housing Options. Report prepared at the request of the Saanich Peninsula Housing Roundtable, October 2014. Accessed April 25, 2017. http://timwake.ca/wp-content/uploads/Saanich-Peninsula-Housing-Options-Report.pdf

AGE-FRIENDLY COMMUNITIES

Ball, M. Scott, Aging in Place – A Toolkit for Local Governments. Report published by the AARP Foundation, November 2012. http://www.aarp.org/content/dam/aarp/livable-communities/plan/planning/aging-in-place-a-toolkit-for-local-governments-aarp.pdf

Ball, M. Scott. 2012. Livable Communities for Aging Populations: Urban Design for Longevity. New Jersey: John Wiley and Sons. Inc.

BC Transit. BC Transit Infrastructure Design Guidelines. November 2010. Accessed September 26, 2017. https://bctransit.com/servlet/documents/1403640670226.

Canada Mortgage and Housing Corporation. "Develop New Affordable Housing." 2017. Accessed September 3, 2017. https://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce/index.cfm

Canada Mortgage and Housing Corporation. "Municipal Planning for Affordable Housing." Socioeconomic Series 63. February 21, 2007. Accessed June 16, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/62462.pdf?fr=1505407107851

Canadian Council of Motor Transport Administrators. Countermeasures to Improve Pedestrian Safety in Canada. (CCMTA: 2013), pp. 26-29. Accessed May 30, 2017. http://ccmta.ca/images/publications/pdf//CCMTA_Pedestrian_Report_Eng_FINAL.pdf

Canadian Institute for Health Information. Accessed August 22, 2017. https://secure.cihi.ca/free_products/ph_workshop_report_e.pdf. p. 10

Coon, Randal C., and F. Larry Leistritz. "Threshold Population Levels for Rural Retail Businesses in North Dakota." 2000. Accessed June 6, 2017. http://ageconsearch.umn.edu/bitstream/23518/1/aem191.pdf

Euerby, A., and C.M. Burns, "Improving Social Connection Through a Communities-of-Practice-Inspired Cognitive Work Analysis Approach," Human Factors, Vol 56, Issue 2 (2016): pp. 361-383. Accessed May 2, 2017. doi: 10.1177/0018720813494410

Government of British Columbia. "Age-friendly Communities." Accessed May 25, 2017. https://www2.gov.bc.ca/gov/content/family-social-supports/seniors/about-seniorsbc/seniors-related-initiatives/age-friendly-bc/age-friendly-communities

Government of Canada. "Age-Friendly Rural and Remote Communities: A Guide."" Report prepared for the Federal/Provincial/Territorial (F/P/T) Ministers Responsible for Seniors. July 5, 2011. Accessed May 5, 2017. https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/seniors-aines/alt-formats/pdf/publications/public/healthy-sante/age_friendly_rural/AFRRC_en.pdf

Groupe Intersol Group. "Canadian Population Health Initiative Healthy Urban Places: Moving from Knowledge to Action." May 16, 2007. Workshop Proceedings Report. Workshop Proceedings Report. Prepared for Canadian Institute for Health Information. Accessed August 22, 2017. https://secure.cihi.ca/free_products/ph_workshop_report_e.pdf

International CPTED Association, and Atlas Safety and Security Design, Inc. CPTED and Lighting: Reducing Crime, Improving Security. 2009. Accessed September 3, 2017. http://www.cpted.net

Kernisan, Leslie. "What are Activities of Daily Living (ADLs) & Instrumental Activities of Daily Living (IADLs)?" Better Health While Aging. 2017. Accessed August 2, 2017. http://betterhealthwhileaging.net/what-are-adls-and-iadls/

Lárusdóttir A. R. and Dederichs, A. "Evacuation Dynamics of Children: Walking Speeds, Flow Through Doors in Daycare Centres." Ph.D. Research, Technical University of Denmark, 2016. Accessed May 30, 2017. http://www.kias.org.uk/wp-content/uploads/2016/02/Walking-speed-children.pdf

MacMillan, C. and N. Stevens. "Contested Spaces: Who Belongs on the Street Where you Live?" Article published online by The Conversation, March 5, 2017. Accessed May 2, 2017. https://theconversation.com/contested-spaces-who-belongs-on-the-street-where-you-live-72660

Miller, Glenn. "No Place to Grow Old: How Canadian Suburbs Can Become Age-Friendly." IRPP Insight. No. 14 (March 2017). Institute for Research on Public Policy. Accessed September 1, 2017. http://irpp.org/wp-content/uploads/2017/02/insight-no14.pdf

Nova Scotia Centre on Aging. "Age-Friendly Communities in Canada: Community Implementation Guide: Toolbox." Report prepared by the Nova Scotia Centre on Aging, Mount Saint Vincent University, for the Public Health Agency of Canada, 2012. Accessed July 4, 2017. https://www.canada.ca/en/public-health/services/publications/healthy-living/age-friendly-communities-canada-community-implementation-guide-toolbox.html

Plan H. "Age-friendly and Child-friendly Communities." Accessed August 1, 2017. http://planh.ca/take-action/healthy-society/inclusive-communities/page/age-friendly-and-child-friendly-communities

Public Health Agency of Canada. Age-Friendly Rural and Remote Communities: A Guide. Report. 2007. http://www.phac-aspc.gc.ca/seniors-aines/publications/public/afc-caa/rural-rurales/index-eng.php

Public Health Agency of Canada. Age-Friendly Communities Evaluation Guide: Using Indicators to Measure Progress. Report. December 2015. Accessed April 15, 2017. http://www.phac-aspc.gc.ca/seniors-aines/indicators-indicateurs-eng.php

Retail Council of Canada. "The Structure of Retail in Canada: Statistical Appendix." Report. 2013. Accessed June 6, 2017. https://www.retailcouncil.org/sites/default/files/documents/the-structure-of-retail-in-canada-statistical-appendix-2013.pdf

Stevens, N. and P. Salmon. "Cities are Complex Systems – Let's Start Looking at Them That Way." Article published online by The Conversation, April 25, 2017. Accessed May 2, 2017. http://theconversation.com/cities-are-complex-systems-lets-start-looking-at-them-that-way-72665

Stevens, N., P. Salmon, and Taylor, N.. "Systems Thinking for New Perspectives on Urban Form – A Case Study of Active Transport Infrastructure in Urban Corridors." In Our Common Future in Urban Morphology, Oliveira V, Pinho P, Batista L, Patatas T and Monteiro C (eds.) (2014), pp. 327-340. Accessed May 2, 2017. http://isuf2014.fe.up.pt/ISUF2014%20ebook.pdf

Township of Esquimalt. Esquimalt Age-friendly Assessment. August 2016. Accessed September 2, 2017. https://www.esquimalt.ca/sites/default/files/docs/esquimalt_age-friendly_assessment_final.pdf

Transportation Association of Canada. Manual of Uniform Traffic Control Devices for Canada: 5th Edition. 2014. Accessed September 22, 2017. http://www.tac-atc.ca/en/5th-edition-manual-uniform-traffic-control-devices-canada

Union of BC Municipalities. "Age-friendly Communities." Accessed July 3, 2017. http://www.ubcm.ca/EN/main/funding/lgps/age-friendly-communities.html

U.S. Department of Housing and Urban Development, "Aging in Place: Facilitating Choice and Independence," Evidence Matters: Transforming Knowledge into Housing and Community Development Policy. Article published by the Office of Policy Development and Research, 2013. Accessed April 27, 2017. https://www.huduser.gov/portal/periodicals/em/fall13/highlight1.html

U.S. Department of Transportation Federal Highway Administration. Accessible Sidewalks and Street Crossings: An Informational Guide. Accessed August 17, 2017. http://www.bikewalk.org/pdfs/sopada_fhwa.pdf

Vine, D. and L. Buys. "Contested Spaces: We Need To See Public Space Through Older Eyes Too." Article published online by The Conversation, March 8, 2017. Accessed May 2, 2017. https://theconversation.com/contested-spaces-we-need-to-see-public-space-through-older-eyes-too-72261

World Bank Group: Urban Bus Toolkit. "Number of Buses per 1,000 People." 2006. Accessed September 26, 2017. https://ppiaf.org/sites/ppiaf.org/files/documents/toolkits/UrbanBusToolkit/assets/1/1c/1c7.html

World Health Organization. "Checklist of Essential Features of Age-friendly Cities." 2007. Accessed June 2, 2017. www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf

World Health Organization. "Constitution of WHO: Principles." 2017. Accessed August 23, 2017. http://www.who.int/about/mission/en

World Health Organization. Global Age-friendly Cities: A Guide. France: WHO Press, 2007. Accessed July 12, 2017. http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf

World Health Organization. "Global Database of Age-Friendly Practices." Accessed April 26, 2017. https://extranet.who.int/datacol/custom_view_report.asp?survey_id=3536&view_id=6301&display_filter=1

World Health Organization. Measuring the Age-Friendliness of Cities: A Guide to Using Core Indicators. Japan: WHO Press, 2015. Accessed June 4, 2017. www.who.int/kobe_centre/publications/AFC_guide/en

FIGURES AND STATISTICS

Canadian Centre for Policy Alternatives BC Office. Affordable Housing Options for Seniors Living in BC: Seniors Fact Sheet. Report. April 2013. http://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2013/04/CCPA-BC-Seniors-Fact-Sheet_Housing.pdf

Canadian Institute for Health Information. Health Care in Canada, 2011: A Focus on Seniors and Aging. Report. 2011. Accessed July 27, 2017. https://secure.cihi.ca/free_products/HCIC_2011_seniors_report_en.pdf

Government of Canada. "Victoria/Saanich Air Quality Health Index." 2017. Accessed December 7, 2017. https://weather.gc.ca/airquality/pages/bcaq-010_e.html

Harvard University. Projections & Implications for Housing a Growing Population: Older Households 2015-2035. Report. Joint Center for Housing Studies. 2016. Accessed June 13, 2017. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/harvard_jchs_housing_growing_population_2016.pdf

Statistics Canada. 2017. British Columbia and Capital, RD [Census division], British Columbia (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. February 8, 2017. Accessed April 26, 2017. http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. "Canadian Survey on Disability (CSD)." Government of Canada, Statistics Canada. February 28, 2017. Accessed August 7, 2017. http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3251

Statistics Canada. "Infographic: Canadian Survey on Disability." Government of Canada, Statistics Canada. March 21, 2017. Accessed June 5, 2017. http://www.statcan.gc.ca/pub/11-627-m/11-627-m2017008-eng.htm

Urban Futures. "Regional, Sub-regional, and TAZ-level Projections for the Capital Regional District." Report prepared for the Capital Regional District. December 1, 2014. Accessed May 27, 2017. https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Population/Population-PDFs/2014-population-employment-amp-dwelling-projections-to-2038.pdf?sfvrsn=92622eca_4

BUILDING DESIGN GUIDELINES

Canada Mortgage and Housing Corporation. "Modifying Development Standards." 2017. Accessed September 22, 2017. https://www.cmhc-schl.gc.ca/en/inpr/afhoce/afhoce/afhostcast/afhoid/pore/modest/index.cfm

Canada Mortgage and Housing Corporation. Accessible Housing by Design. Report. June 17, 2016. Accessed August 22, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/68661.pdf

Canada Mortgage and Housing Corporation. Accessible Housing by Design: House Designs and Floor Plans. Report. Accessed August 21, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/66093.pdf

Canada Mortgage and Housing Corporation. The Cost of Flexhousing. September 2002. Accessed August 2, 2017. https://www.cmhc-schl.gc.ca/en/inpr/rehi/rehi_005.cfm

Canada Mortgage and Housing Corporation. The Cost of Flexhousing. Research Report: Distinct Housing Needs Series. October 2002. Accessed August 22, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/63081.pdf?fr=1505616111149

Canada Mortgage and Housing Corporation. FlexHousing Checklist: Homes that Adapt to Life's Changes. Report. 2014. Accessed August 28, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/61943.pdf?fr=1421086550208

Canadian Standards Association. Accessible Design for the Built Environment. B651-04. August 2004. Accessed August 22, 2017. https://sci-bc-database.ca/wp-content/uploads/Canadian-Standards-Association-Access-Standards-for-the-Built-Environment-2004.pdf

City of Vancouver. "Vancouver Building Bylaw 10908." 2017. Accessed October 30, 2017. http://vancouver.ca/your-government/vancouver-building-bylaw.aspx

District of Saanich. "Adaptable Housing." 2017. Accessed October 1, 2017. http://www.saanich.ca/EN/main/local-government/development-applications/adaptable-housing.html

Fausset, C. B., A. J. Kelly, W. A. Rogers, and A. D. Fisk, "Challenges to Aging in Place: Understanding Home Maintenance Difficulties," Journal of Housing for the Elderly. Vol. 25, Iss. 2 (2011): pp. 125-141, accessed April 25, 2017, doi: 10.1080/02763893.2011.571105

Government of British Columbia. A Guide to Requesting a Local Authority Variation: Section C1 of the Building Act Guide. Office of Housing and Construction Standards. October 2016. Accessed September 25, 2017. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/baguide_sectionc1_oct2016.pdf

Government of British Columbia. "Accessibility 2024: Making B.C. the Most Progressive Province in Canada for People with Disabilities by 2024." Report. 2014. Accessed June 4, 2017. https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/accessible-bc/accessibility-2024/docs/accessibility2024_update_web.pdf

Government of British Columbia. "Building Act: Consistency." April 11, 2017. Accessed September 12, 2017. http://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/building-act/consistency

Government of British Columbia. Building Access Handbook 2014. Office of Housing and Construction Standards: 2014. Accessed July 2, 2017. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/2014_building_access_handbook.pdf

Government of British Columbia. Understanding B.C.'s Building Regulatory System. Building Act Guide Series: Section A1. Office of Housing and Construction Standards. July 2015. Accessed September 26, 2017. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/buildingactguide_sectiona1_june2015_web.pdf p.5

Government of British Columbia. What Local Governments Need to Know about the Building Act. Building Act Guide Series: Section B1. Office of Housing and Construction Standards. June 2016. Accessed September 28, 2017. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/baguide_sectionb1_june2016.pdf

Harvard University, Housing America's Older Adults: Meeting the Needs of an Aging Population. Report published by the Joint Centre for Housing Studies of Harvard University, 2014. Accessed April 26, 2017. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs-housing_americas_older_adults_2014.pdf

Trachtman, Lawrence H., Ronald L. Mace, Leslie C. Young, and Rex J. Pace. 1999. "The Universal Design Home: Are We Ready for It?" In Aging in Place: Designing, Adapting, and Enhancing the Home Environment, edited by Ellen D. Taira and Jodi L. Carlson, 1-18. Binghamton, NY: Haworth Press.

COHOUSING AND CO-OPERATIVE LIVING

Abbit, Linda. "Urban Cohousing the Babayaga Way." Senior Planet. June 3, 2016. Accessed May 16, 2017. https://seniorplanet.org/senior-housing-alternatives-urban-cohousing-the-babayaga-way/

"Baba Yaga Place, Toronto." Baba Yaga Place. 2017. http://www.babayagaplace.ca/

Canada Mortgage and Housing Corporation. "Forming and Running a Housing Co-op." CMHC. 2017. Accessed August 13, 2017. https://www.cmhc-schl.gc.ca/en/co/buho/gucoho/foruco/foruco_003.cfm

Canadian Senior Cohousing. "Baba Yaga Place, Toronto." 2015. Accessed May 15, 2017. http://canadianseniorcohousing.com/?page_id=1196

"Co-care." Canadian Senior Cohousing. Accessed August 12, 2017. http://canadianseniorcohousing.com/?page_id=993

Durrett, Charles. Senior Cohousing Handbook: 2nd Edition. Canadian Senior Cohousing. Accessed May 15, 2017. http://canadianseniorcohousing.com/?page_id=40

"Flourishing through Mutual Support." Harbourside Cohousing. Accessed May 15, 2017. http://www.harbourside.ca

Government of British Columbia. Cooperative Association Act. 2014. Accessed August 3, 2017. http://www.bclaws.ca/civix/document/id/complete/statreg/r15001_00

Hird, Alison. "The Babayagas' House, a Feminist Alternative to Old People's Homes, Opens in Paris." RFI English. Last Modified March 5, 2013. Accessed May 15, 2017. http://en.rfi.fr/france/20130305-babayagas-house

Thomas, Megan. "Cohousing Developments that Promote 'Aging in Place' Catching on in B.C.." CBC News. March 20, 2016. Accessed April 5, 2017. http://www.cbc.ca/news/canada/british-columbia/seniors-who-want-to-age-in-place-make-case-for-cohousing-developments-1.3498599

"Harbourside." Canadian Senior Cohousing. Accessed August 12, 2017. http://canadianseniorcohousing.com/?page_id=20

"How is Cohousing Different from a Cooperative or a Conventional Strata Title/Condominium?" Harbourside. Accessed August 13, 2017. http://www.harbourside.ca/pdf/How%20is%20Cohousing%20different%20from%20a%20Coop.pdf

"Sustainable and Connected on the Saanich Peninsula." Saanich Peninsula Cohousing. 2017. Accessed August 12, 2017. http://www.saanichpeninsulacohousing.com/

Kim, Grace. "How Cohousing Can Make Us Happier (and Live Longer)." [Video] TED. April 2017. Accessed August 27, 2017. https://www.ted.com/talks/grace_kim_how_cohousing_can_make_us_happier_and_live_longer

"Welcome to Bowen Court." Bowen Island Seniors' Housing Cooperative. April 22, 2017. Accessed August 12, 2017. http://bishc.org/index.html

"What is Co-op Housing?" Co-operative Housing Federation of British Columbia. Accessed August 27, 2017. http://www.bclaws.ca/Recon/document/ID/freeside/00_99028_01

ECHO HOUSING

Canada Mortgage and Housing Corporation. "Garden Suites." Fact Sheet. December 17, 2014. Accessed July 24, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/65009.pdf?fr=1441901300719

ECHO Cottages "About ECHO." 2017. Accessed September 2, 2017. http://www.echocottages.com

Etemadieh, Arianna. "These "Granny Pods" are the Best Alternative to Moving your Loved ones into a Nursing Home," Shareably, July 24, 2017. Accessed September 1, 2017. https://shareably.co/backyard-granny-pods/?utm_source=pulp&utm_medium=facebook&utm_campaign=parents

Klingbeil, Cailynn. "Calgary Could Remake Housing Design for Seniors." Next City, November 16, 2016. Accessed September 1, 2017. https://nextcity.org/daily/entry/calgary-housing-design-test-seniors-aging-in-place-architecture

MedCottage. "Med Cottage." Accessed September 2, 2017. http://www.medcottage.com/home.html

Trottier, Lisa. "ECHO Housing." Caring.com. September 7, 2017. Accessed September 18, 2017. https://www.caring.com/articles/echo-housing

HUMANITAS

"Care Facility: Deventer, Netherlands." Intergenerational Housing, Wordpress. Accessed July 2, 2017. https://intergenerationalhousing.wordpress.com/case-studies/deventer-netherlands/

Cooke, Lacy. "New Dutch Housing Model Lets Students Stay at a Senior Living Home for Free." Inhabitat. September 23, 2016. Accessed July 3, 2017. https://inhabitat.com/dutch-housing-model-lets-students-stay-at-a-senior-living-home-for-free/

Jansen, Tiffany R.. "The Nursing Home That's Also a Dorm." City Lab. October 2, 2015. Accessed July 2, 2017. https://www.citylab.com/equity/2015/10/the-nursing-home-thats-also-a-dorm/408424/

Hansman, Heather. "College Students are Living Rent-free in a Cleveland Retirement Home." Smithsonian. October 16, 2015. Accessed July 3, 2017. http://www.smithsonianmag.com/innovation/college-students-are-living-rent-free-in-cleveland-retirement-home-180956930/?no-ist

"'Intergenerational' Retirement Home Sees Students Live Alongside the Elderly." CTV News. December 7, 2014. Accessed July 2, 2017. http://www.ctvnews.ca/health/intergenerational-retirement-home-sees-students-live-alongside-the-elderly-1.2136659

Malfilatre, Stella. "Humanitas Retirement Home: Jurrien Mentink's Story." Age of No Retirement. February 8, 2017. Accessed July 3, 2017. https://www.ageofnoretirement.org/stories/jurrienmentink

Reed, Carey. "Dutch Nursing Home Offers Rent-free Housing to Students." PBS News Hour. April 5, 2015. Accessed July 3, 2017. http://www.pbs.org/newshour/rundown/dutch-retirement-home-offers-rent-free-housing-students-one-condition/

INFILL HOUSING

City of Portland. "Housing Prototypes." Report. December 2008. Accessed August 15, 2017. https://www.portlandoregon.gov/bps/article/223709

City of Portland. "Infill Design." Department of Planning and Sustainability. 2017. Accessed August 15, 2017. https://www.portlandoregon.gov/bps/34024

MICROTRANSIT

Bliss, Laura. "Bridj is Dead, but Microtransit Isn't." City Lab. May 3, 2017. Accessed September 17, 2017. https://www.citylab.com/transportation/2017/05/bridj-is-dead-but-microtransit-isnt/525156/

Bliss, Laura. "Older People Will Need Much Better Transit." Flipboard. August 4, 2017. Accessed September 17, 2017. https://flipboard.com/@flipboard/-older-people-will-need-much-better-tran/f-42fb4f135c%2Fcitylab.com

Transit Centre. All-ages Access: Making Transit Work for Everyone in America's Rapidly Aging Cities. 2017. Accessed September 16, 2017. http://transitcenter.org/wp-content/uploads/2017/08/ALL-AGES.pdf

NEXTGEN HOUSES

Esquer, Jenna. "More Families Opt for 'Next-Gen Housing to Save Money." CBS News. February 2, 2017. Accessed July 27, 2017. http://losangeles.cbslocal.com/2017/02/02/more-families-opt-for-next-gen-housing-to-save-money

 "NextGen: The Home Within a Home." Lennar. 2017. Accessed July 27, 2017. https://www.lennar.com/homewithinahome

Olick, Diana. "Under One Roof: Multigenerational Housing Big for Builders." CNBC. February 8, 2016. Accessed August 2, 2017. https://www.cnbc.com/2016/02/08/under-one-roof-multigenerational-housing-big-for-builders.html

VILLAGE TO VILLAGE

Accius, Jean C. "The Village: A Growing Option for Aging in Place." Fact Sheet 177. AARP Public Policy Institute. March 2010. Accessed August 12, 2017. https://assets.aarp.org/rgcenter/ppi/liv-com/fs177-village.pdf

Bahrampour, Tara, "Through a Growing Number of Senior Villages in the D.C. Area, Aging in Place Becomes Easier." The Washington Post, February 6, 2014. Accessed August 12, 2017. https://www.washingtonpost.com/local/through-a-growing-number-of-senior-villages-in-the-dc-area-aging-in-place-becomes-easier/2014/02/06/e51fc660-7fbf-11e3-9556-4a4bf7bcbd84_story.html?utm_term=.e55090ecaeef

Helpful Village. "The Village Movement." 2016. Accessed August 12, 2017. http://www.helpfulvillage.com/the_village_movement

Mercer, Marsha. "Villages Take Root Around Virginia." AARP The Magazine. October 1, 2010. Accessed August 12, 2017. http://www.aarp.org/home-garden/livable-communities/info-09-2010/villages_take_root_around_virginia.html

"Ocean View Presents the Neighbourhood Program." Ocean View. 2017. Accessed August 12, 2017. http://www.ovnp.clubexpress.com/content.aspx?page_id=22&club_id=271397&module_id=203275

Thomas, Martha. "Villages: Helping People Age in Place." AARP The Magazine. May/June 2011. Accessed August 12, 2017. http://www.aarp.org/home-garden/livable-communities/info-04-2011/villages-real-social-network.html

"Video of the Week: It Takes Villages." [Video] Senior Planet. May 5, 2015. Accessed August 13, 2017. https://seniorplanet.org/video-of-the-week-it-takes-villages/

Village to Village Network. "Find a Village." 2017. Accessed May 6, 2017. http://www.vtvnetwork.org/content.aspx?page_id=0&club_id=691012

VISITABILITY

Canada Mortgage and Housing Corporation. FlexHousing Checklist: Homes that Adapt to Life's Changes. Report. 2014. Accessed August 28, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/61943.pdf?fr=1421086550208

Canada Mortgage and Housing Corporation. Visitable Homes. Report. June 14, 2016. Accessed September 3, 2017. https://www.cmhc-schl.gc.ca/odpub/pdf/68677.pdf

City of Edmonton. "Build a Home for Life." Accessed August 12, 2017. https://www.edmonton.ca/city_government/documents/PDF/home-for-life.pdf

District of Saanich. "Adaptable Housing." 2017. Accessed August 12, 2017. http://www.saanich.ca/EN/main/local-government/development-applications/adaptable-housing.html

National Council on Independent Living. "Visitability: Basic Access to Homes." 2017. Accessed June 12, 2017. https://visitability.org/

This page has been intentionally left blank..
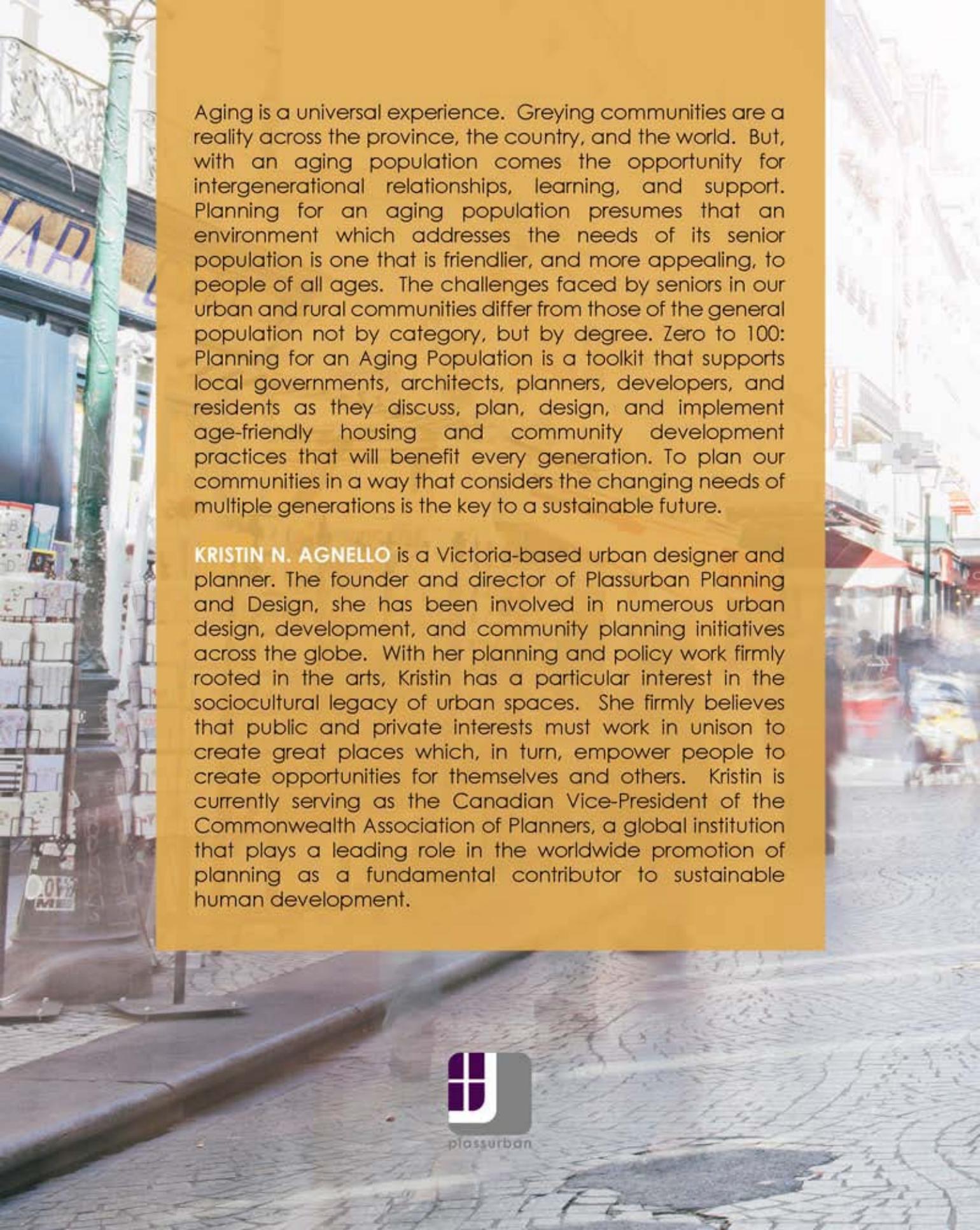
Aging is a universal experience. Greying communities are a reality across the province, the country, and the world. But, with an aging population comes the opportunity for intergenerational relationships, learning, and support. Planning for an aging population presumes that an environment which addresses the needs of its senior population is one that is friendlier, and more appealing, to people of all ages. The challenges faced by seniors in our urban and rural communities differ from those of the general population not by category, but by degree. Zero to 100: Planning for an Aging Population is a toolkit that supports local governments, architects, planners, developers, and residents as they discuss, plan, design, and implement age-friendly housing and community development practices that will benefit every generation. To plan our communities in a way that considers the changing needs of multiple generations is the key to a sustainable future.

KRISTIN N. AGNELLO is a Victoria-based urban designer and planner. The founder and director of Plassurban Planning and Design, she has been involved in numerous urban design, development, and community planning initiatives across the globe. With her planning and policy work firmly rooted in the arts, Kristin has a particular interest in the sociocultural legacy of urban spaces. She firmly believes that public and private interests must work in unison to create great places which, in turn, empower people to create opportunities for themselves and others. Kristin is currently serving as the Canadian Vice-President of the Commonwealth Association of Planners, a global institution that plays a leading role in the worldwide promotion of planning as a fundamental contributor to sustainable human development.

plassurban