



CANADIAN CENTRE ON DISABILITY STUDIES

VISITABLE HOUSING

Knowledge, Practices, and Policies:

Literature Review

Environmental Scan

Policy Review

November 2013

VISITABLE HOUSING: Knowledge, Practices, and Policies

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This report is based on research conducted by the Canadian Centre on Disability Studies (CCDS) as a part of the national project Collaborative Knowledge Building and Action for Visitable Housing in Canadian Cities ('Visitability Project').

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This report and other relevant information and resources are also available at CCDS' website: <http://www.disabilitystudies.ca> or CCDS' Visitability website: <http://visitablehousingcanada.com>.

ACKNOWLEDGEMENT

Funder

The Visitability Project was funded by the Government of Canada's Social Development Partnerships Program — Disability Component. CCDS thanks the funder for their support.

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CCDS also appreciates the Advisory Committee of the Visitability Project, who provided the research team with assistance in gathering information and resources related to Visitability and with input on the report.

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Table of Contents

LITERATURE REVIEW	- 1 -
Introduction to Visitability	- 1 -
Definition of Visitability	- 2 -
Visitability History	- 2 -
Reasons for Visitable Housing	- 3 -
People with Mobility Difficulties and Aging Population	- 3 -
Aging in Place	- 4 -
Falls and Injuries	- 5 -
Issues and Gaps	- 6 -
Myths about Visitability	- 6 -
Costs and Marketability	- 7 -
Costs	- 7 -
Marketability	- 8 -
Advantages and Obstacles	- 9 -
Advantages of Visitable Housing	- 9 -
Concerns and Challenges Related to Visitable Housing	- 11 -
Obstacles and Solutions	- 13 -
Recommendations to Promote Visitable Housing	- 15 -
Conclusion	- 16 -
References	- 17 -
ENVIRONMENTAL SCAN	- 20 -
Background	- 20 -
Purpose of the Environmental Scan	- 20 -
Approach	- 20 -
Initiatives and Projects	- 21 -
Bridgwater Project	- 21 -
Home Building Project by Spence Neighbourhood Association (SNA)	- 22 -
Home for Life™	- 23 -
Hunt Coulee Village (HCV)	- 24 -
Flex-Plex Housing Affordability Project	- 25 -
Habitat for Humanity Victoria Project	- 25 -
Abbotsford Seniors Housing Study	- 26 -
Measuring Up the North	- 27 -
The Prince George Visitable Housing (VH) Project	- 28 -
Tr'ondek Hwech'in Project	- 29 -
Canada Mortgage and Housing Corporation Initiatives	- 30 -
Bolingbrook Initiative	- 33 -

Notable People in Visitability or Universal Design	- 34 -
Glen Manning	- 34 -
Eleanor Smith	- 35 -
Jake Pauls	- 35 -
Brad McCannell	- 35 -
Avi Friedman.....	- 36 -
Ron Wickman	- 36 -
Bob Topping	- 36 -
Laurie Ringaert	- 37 -
Lanny L. M. Silver	- 37 -
Edward Steinfeld.....	- 38 -
Elaine Ostroff	- 38 -
Jim Mueller	- 39 -
James Lenker	- 39 -
Jordana Maisel	- 40 -
Personal Stories	- 41 -
Mind The Gap	- 41 -
Related Government Subsidies and Assistance in Canada	- 42 -
British Columbia.....	- 42 -
Manitoba.....	- 42 -
Ontario.....	- 43 -
New Brunswick	- 44 -
Nova Scotia	- 44 -
Saskatchewan	- 45 -
The Home Adaptations for Seniors' Independence (HASI).....	- 45 -
Residential Rehabilitation Assistance Program for Persons with Disabilities	- 45 -
Veterans Independence Program	- 46 -
Resources	- 46 -
VisitableHousingCanada.Com	- 46 -
A Visit from Pops	- 46 -
Libby and the Cape of Visitability	- 47 -
Visitable Housing: Community Building through Visitable & Adaptable Housing	- 47 -
Canada MHC Maintaining Seniors' Independence through Home Adaptations	- 47 -
Welcome Home: Universal Design, Sustainable Design, and Baby Boomers	- 47 -
Visitable Housing: Cost Estimate Summary	- 48 -
Visit-ability: An Approach to Universal Design in Housing	- 48 -
Accessibility	- 48 -
Universal Housing Design "It just makes good sense."	- 48 -
Canada Global Age-Friendly Cities Project	- 49 -
AARP's Increasing Home Access: Designing for Visitability	- 49 -
Conclusion	- 49 -

POLICY REVIEW: Visitability and Home Accessibility	- 50 -
Background	- 50 -
Canada	- 50 -
Vancouver, British Columbia	- 50 -
Manitoba	- 51 -
Saanich, British Columbia	- 51 -
The United States	- 52 -
State of Florida	- 52 -
Pima County (Arizona)	- 53 -
Bolingbrook, Illinois	- 53 -
Freehold Borough, NJ	- 53 -
Austin, TX	- 54 -
Irvine, CA	- 54 -
Urbana, IL	- 54 -
Visalia, CA	- 54 -
San Antonio, TX	- 54 -
Onondaga County, NY	- 55 -
Southampton, NY	- 55 -
Naperville, IL	- 55 -
Long Beach, CA	- 55 -
Iowa City, Iowa	- 55 -
Escanaba, MI	- 56 -
Chicago, IL	- 56 -
Houston, TX	- 56 -
Pittsburgh, PA	- 56 -
St. Petersburg	- 57 -
Toledo, OH	- 57 -
Auburn, NY	- 57 -
Scranton, PA	- 57 -
Arvada, CO	- 58 -
Milwaukee, WI	- 58 -
Montgomery County, Maryland	- 58 -
Rockford, IL	- 59 -
Davis, CA	- 59 -
Lafayette, CO	- 59 -
Dublin City, CA	- 60 -
Birmingham, AL	- 60 -
Connecticut	- 60 -
Indiana	- 60 -
Minnesota	- 61 -
Vermont	- 61 -
International	- 62 -
United Kingdom	- 62 -
Sweden	- 62 -

LITERATURE REVIEW

The Canadian Centre on Disability Studies has conducted a literature review on Visitable housing. This literature review is a part of the national initiative, *Collaborative Knowledge Building and Action for Visitable Housing in Canadian Cities Project*. This project is funded by the Government of Canada's Social Development Partnerships Program — Disability Component.

This literature review was intended to examine information, experiences, lessons, and issues related to Visitable housing. The review focused on the literature published in Canada and the United States over the last 15 years. Relevant literature was identified and gathered using the EBSCOhost database and the Google search engine. The references used in this report includes both formal and information literature, including academic research articles, project reports, government documents, and websites. However, we found very little scholarly research focused primarily on Visitable housing.

Introduction to Visitability

Houses are often built without any consideration of end users with mobility issues such as those with a disability or the aging (Bakker, 1999; Hall, 1999). People have differing needs and requirements with regards to housing. The needs of people change throughout their time living in a house. Some of these changes may be associated with pregnancy, small children, illness, aging or disability. Also, a house usually serves many occupants throughout its lifetime. Poor housing design affects not only the first people who live in the house, but all people who dwell in the house throughout the life of the building (Ward, 2005). User-friendly housing needs to accommodate the differing needs and requirements of all residents. Although Visitable housing was first introduced in consideration of people with physical disabilities, the concept is now widely accepted as a desirable home design for a wide range of residents (American Association of Retired Persons, 2000; Canadian Centre on Disability Studies, 2009; Canadian Mortgage and Housing Corporation, 1999; Nair, 2005; Pynoos, Caraviello, & Cicero, 2009; Wagnild, 2001; Ward, 2005).

Definition of Visitability

Visitability is “an affordable, sustainable and inclusive design approach for integrating basic accessibility features into all newly built homes and housing (Truesdale & Steinfeld, n.d.).

Although different people describe ‘Visible’ houses in slightly different terms, the following three features are essential to define ‘Visitability’ (Manitoba Housing and Renewal Corporation, n.d.):

- 1) One level, no-step entrance (minimum 36”)
- 2) Wider doorways and clear passage throughout (minimum 32”)
- 3) A wheelchair accessible bathroom on the main floor

Three Visitability Features:

- 1) One level, no-step entrance (minimum 36”)**
- 2) Wider doorways and clear passage throughout (minimum 32”)**
- 3) A wheelchair accessible bathroom on the main floor**

These basic accessibility features allow visitors easy access at least to the main floor of the house. It is important to distinguish Visitability from Universal Design in that:

- Visible homes are not fully accessible dwellings or universally designed units, and
- Visitability features do not apply to the upper floors or the basement (Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram, 2006).

Visitability History

In North America, Eleanor Smith and a group of advocates for people with disabilities introduced the concept of Visitability (Truesdale & Steinfeld, n.d.). In 1986, Eleanor Smith and her colleagues launched an initiative called “Concrete Change”. The initiative was intended to make a new community in Atlanta, which was to be developed by ‘Habitat for Humanity’, inclusive for people with physical disabilities. They realized that although some of the houses in the community were planned to be accessible for residents with physical disabilities, these people would not be able to visit their neighbours in the community due to stairs at the entrance and inaccessibility of bathrooms. Concrete Change suggested that Habitat for Humanity apply a set of basic accessibility features in every home in the housing project. Through the group's persistence and the Habitat board's endorsement, the first seven Visible Habitat homes in the

Atlanta area were built in 1990. Eleanor Smith and her colleagues learned that the term ‘Visitability’ was used in England for a similar concept and later adopted the term for those basic accessibility features that they promoted (Truesdale & Steinfeld).

In the recent decades, the USA, Australia, the UK and other European countries have made much progress in advancing Visitable housing in practice. Canada, however, is lagging behind those countries in terms of legislation, public education, and incentives to promote Visitable housing (CCDS, 2007).

Reasons for Visitable Housing

People with Mobility Difficulties and Aging Population

Research shows that a great number of Canadians are subjected to inaccessibility of conventional housing designs. According to the Participation and Activity Limitation Survey (PALS, 2006), for example, one in six Canadians (14.3%) have a disability, which affect their daily activities. In addition, 43.4% of adults aged 65 and over have an activity limitation, which includes various conditions, such as agility, pain, and loss of sight. In particular, one third of all Canadians aged 65 or over reported difficulty in daily activities due to mobility problems.

Older adults are another group that tends to be vulnerable to architectural barriers. As of 2010, older adults aged 65 years and over accounted for 14.1% of the Canadian population, up from 13.9% one year earlier (Statistics Canada, 2006). Population aging in Canada is expected to accelerate in the next several decades. Statistics Canada also projects that older adults could account for more than one-fifth of the population as soon as 2026 and could exceed one-quarter of the population by 2056. The most common types of disabilities among seniors living in the community involve mobility and agility limitations (Employment and Social Development Canada, 2013).

In Canada, older adults aged 65 or older could account for more than one-fifth of the population as soon as 2026 and could exceed one-quarter of the population by 2056.

Aging in Place

'Aging in place' is defined as “creating a situation whereby older people can remain in their own familiar surroundings for longer, so delaying or possibly obviating the need to move to specific institutional residential care facilities” (Houben, 2001, p. 651). Numerous studies show that the majority of older people who live at home wish to age in place (American Association of Retired Persons, 2000; Canadian Mortgage and Housing Corporation, 1999; Nair, 2005; Wagnild, 2001). According to the American Association of Retired Persons (2000), for example, 89% of respondents aged 55 or older noted that they would like to remain in their current residences for as long as possible. Wagnil who studied residential preferences of 776 adults aged 55 years old or older also reported similar results. The older adults in Wagnil’s study identified the most important reasons that they like to age in place are a sense of independence and control, proximity to family, familiarity, safety and security, and being near friends.

90% of respondents aged 55 or older want to live in their current home as long as possible as they age.

Builders do not take into account age-related conditions such as reduced mobility when building a home (Bakker, 1999). Houses are typically designed for younger people and as people get older their own homes become less and less user-friendly (Nair, 2005). Consequently, most homes are hostile to the physical and sensory changes that older adults encounter as they age. As people age, climbing stairs becomes increasingly taxing or, in some cases, even dangerous. Bakker (1997) notes that seemingly insignificant home features can have powerful disabling effects. For example, for a person who is recovering from surgery, carrying a walker over the doorsill can be an overwhelming challenge (Bakker, 1997).

Croucher, Hicks and Jackson (2006) also report that a common reason that seniors move their home is their mobility problems. In a longitudinal study, June (2006) surveyed 6,225 older adults aged 70 and older. The findings indicated that disability in basic activities of daily living or in lower body activities among older persons increased the likelihood of their entrance into an institutional setting. However, they were less likely to move to an institution or care home when their homes were equipped with some built environment features, such as ramps, railings, or

grab-bars. Minor accessibility features can make a considerable difference in individuals' ability to live independently in their home (Adams, 2001).

A common reason that seniors move their home is their mobility problems.

Falls and Injuries

The no-step entrance feature of Visitable housing may have some safety implications. The physical environment does indeed directly affect the likelihood of falls and injuries, especially among the very old and frail at a high cost to society (Wister, 2005). The National Health Interview Survey (NHIS) in 1997 and 1998 reported that 14 percent of the falls leading to injury took place on stairs or steps (Chen, Warner, Fingerhut, Makuc, 2009).

Incidence of stair-related injuries is likely to increase with age (Startzell, Owens, Mulfinger, & Cavanagh, 2000). Among 34.7 million persons aged 65 and older, the estimated 1.8 million falls leading to an emergency room visit in 2000, and falls are the leading cause of death from injuries among older persons (Kochera, 2002). Seniors accounted for more than half of people who were seriously injured by falls on stairs or steps and were hospitalized between April 1, 2001 and March 31, 2002 (Canada Mortgage and Housing Corporation, n.d.).

Seniors account for more than half of people who were seriously injured by falls on stairs or steps and were hospitalized.

Over 50% of falls that older adults suffer occur in their own home. A large portion of Canadians who visit hospitals after a fall on stairs or steps in their homes are older adults aged 65 years or older (Canada Mortgage and Housing Corporation, 2010). Staircases are one of the common areas within the home where falls occur (Rogers, Rogers, Takeshima, & Islam, 2004). Stairs are the leading cause of serious falls among community-living elderly, accounting for about one-third of all fatal falls.

Over 50% of falls that older adults suffer occur in their own home. Staircases are one of the common areas within the home where falls occur.

Issues and Gaps

In 2007, CCDS carried out the on-line survey on Visitable housing in Canada. The study identified existing issues and gaps that have some implications on Visitable housing (Canadian Centre on Disability Studies, 2007). They are as follows:

- There is a lack of housing stock that even has basic access in Canada.
- In most cases people are forced to carry friends and relatives who use a wheelchair up stairs into their homes or have them not visit.
- There are very few Visitability regulations in Canada. Those that exist are voluntary and for publicly funded housing. No private housing ordinances were identified.
- The aging population is growing and Canada needs to move forward to meet its housing needs of the future
- The housing industry/planners/designers are not educated on Visitable housing

There is a lack of housing stock that even has basic access in Canada.

In most cases people are forced to carry friends and relatives who use a wheelchair up stairs into their homes or have them not visit.

Myths about Visitability

Concrete Change, the US initiative on Visitability, has identified several myths about Visitable homes (Truesdale & Steinfeld, n.d.):

1) Aesthetic Concerns

Myth: Visitability features are unattractive.

Truth: To the contrary. In fact, many home buyers view Visitability features as attractive.

2) Expense

Myth: The expense of including Visitability features is high.

Truth: Not true. If Visitability is incorporated into the housing design at the planning stage, the additional expense is negligible. In addition, the extra space necessary to include such features is insignificant. And once a home is Visit-able, making it fully accessible in the future would cost far less.

3) Siting Constraints

Myth: A zero-step entrance is feasible only on a flat lot.

Truth: Not true. When using the lay of the land to advantage, a sloping lot is often even easier to work with than a flat lot.

4) Design Constraints

Myth: A zero-step entrance is only feasible when building on a concrete slab.

Truth: Building a basement or crawl space does not make a zero-step entrance infeasible. The grade of the surrounding land can be adjusted to eliminate steps without requiring a ramp. Depending on the site conditions, this may require a deeper basement to bring the first floor level closer to grade.

As to the expense associated with the Visitability features, however, other studies report conflicting information. The cost aspect of the Visitability features are examined in the next section 'Costs and Marketability'.

Costs and Marketability

Costs

Cost is a factor in lack of interest in accessible design in architectural practices (Imric, 1999). Imric found that home builders make decisions on economic grounds when building houses. Some studies examined costs associated with building Visitable homes. The additional costs related to Visitable homes vary study by study and case by case.

Many cases suggest that when Visitability features are planned for at the outset, additional costs are minimal (Truesdale, S. & Steinfeld, n.d.; Spegal & Liebeg, n.d.). For example, the East Lake Commons project in Atlanta, which built 67 Visitable homes, reported that the additional cost associated with Visitability was roughly \$25 per house (Visitability Issues, 2003). Concrete Change, a national education and advocacy organization, also found that as little as \$200 is needed to provide basic access. Concrete Change estimates, however, that retrofitting costs an average of \$1700 (\$1000 to add a zero-step entrance and \$700 to widen an existing doorway).

Truesdale and Steinfeld compared the costs of two Visitable homes built in Buffalo, NY and Rochester, NY against the cost of non-Visitable homes. They estimated the additional costs for Visitability features were less than \$1,000.

The city council of Naperville, Illinois, passed an ordinance that requires all new private homes to be constructed with three Visitability features. The builders who built Visitable homes in the city reported that the cost of these features ranged between \$500 and \$5,000 (Kaminski, Mazumdar, DiMento, & Geis, 2006).

In Winnipeg, Manitoba, a team of building and development professionals conducted a case study on costs of building three Visitable homes (Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, & Hilderman Thomas Frank Cram, 2007). The costs associated with the three Visitability features were tallied in total between \$8,000 and \$12,000. The range of cost for each feature are as follows:

- An accessible path of travel. (\$ 620.00 - \$950 and up)
- A no step entry. (\$50.00 to \$700.00)
- Circulation within a dwelling. (\$300 to \$500)
- Washroom on the main entry and living level. (\$7500 to \$10,000)

Additional costs associated with building Visitable homes vary from \$25 to \$10,000.

There are likely several different factors that create this discrepancy in the perception of costs related to Visitability. Steven Winter Associates (1993) investigated costs of accessible housing. According to the study, the topography of the site and design of the buildings created real differences in cost impact. Also, the study reported that where units were designed to a low standard (very small spaces), the cost impact of accessibility was higher. In addition, some studies suggested that most of the additional costs in building Visitable homes is related to creating the accessible route to the door and the no step entry, rather than interior design (Progressive Accessibility Re-form Associates et al., 2007)

Marketability

Many proponents argue that the cost of Visitability is negligible or at least affordable (Rehabilitation Engineering Research Center on Universal Design at Buffalo, n.d.). In addition,

some argue that the advantages of the Visitability features balance out the costs (Rehabilitation Engineering Research Center on Universal Design at Buffalo). For example, the builders who built a number of Visitable homes in Naperville suggested that larger hallways and level entryways with bigger doors have greater aesthetic appeal than the conventional home design (Kaminski et al., 2006). Large bathrooms, with wheelchair turnaround space, also get high ratings from buyers, as do sizable kitchen islands.

Many people agree that Visitability features have aesthetic appeal.

The aging population may have marketing implications for Visitable homes. In Canada, roughly three quarters (71.2%) of senior-led households own their home (Canada Mortgage and Housing Corporation, 1999). The Canada Mortgage and Housing Corporation also reported that over 80 per cent of seniors who moved chose a dwelling with one floor. Even among those who moved to single-attached houses, there was evidence of a preference for homes with fewer stairs.

Over 80% of older adult prefer homes with fewer stairs.

Visitable housing can also be attractive to those who may require home modifications for accessibility. According to 1995 American Housing Survey, the most common modifications made in households with seniors were: extra handrails or grab bars (29 per cent), wide doors/hallways (10), accessibility features in the bathroom (10), and ramps (9) (Kochera, 2002). Furthermore, the Visitability features may minimize the need for more costly personal care services, reduce accidents, and delay institutionalization (Pynoos & Nishita, 2003).

Advantages and Obstacles

Advantages of Visitable Housing

Literature highlights a number of advantages of Visitable housing. Identified benefits for individuals are as follows:

- a. Visitability features provide better access to the house for people with mobility difficulties. Houses are built to last for many decades. It is most likely that a house will have

residents who have mobility difficulties or its residents have a family member or friend who would like to visit, but has mobility difficulties over the course of its life time (Canadian Centre on Disability Studies, 2009; Pynoos, Caraviello, & Cicero, 2009; Ward, 2005).

- b. The no step-entrance of Visitable housing reduces the risks of fall or injuries of the residents. Also, family members, friends and paid community care workers benefit from safe working environments when assisting people with mobility difficulties (Canadian Centre on Disability Studies; Pynoos et al.; Ward).
- c. The no step-entrance provides easy access to the house for those young children in prams and strollers or who are carrying large amounts of washing, shopping or heavy equipment (Canadian Centre on Disability Studies; Ward).
- d. Visitability can help prevent premature institutionalization of older adults, by removing physical barriers in housing (Pynoos et al.).
- e. Visitable housing helps people with mobility difficulties age in place.
- f. Visitable housing enables people with mobility difficulties to live in the community and better integrate them into the social fabric of their neighbourhoods (Canadian Centre on Disability Studies, 2009; Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram, 2006). Ipsos MORI (2000) investigated older people's experience of social isolation. According to the study, nearly one million older people aged 65 and over (10 per cent) in Britain feel acutely isolated and over one million older people (12 per cent) feel trapped in their own home.
- g. With the Visitability features installed, the home owners will have reduced costs for home renovations at a time of mobility changes (Canadian Centre on Disability Studies).

Visitable housing promotes safety, social inclusion, community life, and convenience for those who have mobility difficulties.

In addition, Visitable housing has positive impacts on the society as a whole. The benefits of Visitable housing to the community are (Ward, 2005):

- Fewer injuries to older people and young children;
- More appropriate and efficient use of acute care hospitals and rehabilitation facilities, because more people with mobility difficulties can stay at home;

- Safer work environments for both paid and unpaid care-givers;
- Less demand for home modifications, assistive equipment and paid assistance for daily living tasks for people with mobility difficulties; and
- Less demand on institutional care arrangements for older people and people with a disability, because they can stay in their own home longer. Costs for care were generally lower for community clients than for facility clients regardless of whether only the costs to government were taken into account or both formal and informal costs were taken into account (Chappell et al., 2002).

Concerns and Challenges Related to Visitable Housing

Researchers and professionals have identified some concerns pertaining to Visitable housing.

Those concerns may be real or perceptual. The concerns identified are as follows:

- Affordability and costs associated with building Visitable homes (Canadian Centre on Disability Studies, 2007; Imric, 1999; Progressive Accessibility Re-form Associates et al., 2006),
- Loss of living space (e.g., kitchen, living room, bedroom) due to enlarged bathroom and hallway (Imric),
- Site or construction issues (Canadian Centre on Disability Studies; Progressive Accessibility Re-form Associates et al.), and
- Negative aesthetic quality of Visitability features homes (Canadian Centre on Disability Studies; Progressive Accessibility Re-form Associates et al.).

**Concerns related to Visitable Housing:
Costs, Loss of Living Space, and Site/Construction Issues**

As examined in the section ‘Costs and Marketability’, estimated costs associated with Visitable housing vary. Therefore, the extent that costs of Visitable housing affect marketing is inconclusive. In addition, the aesthetic aspect of Visitable housing is a matter of personal preference. In fact, many building professionals view the Visitability features as aesthetically attractive (Kaminski et al., 2006).

Literature also suggests some challenges to promoting Visitable housing. The barriers identified are:

- Lack of innovation within the building industry in relation to design, production techniques and marketing of accessible homes (Barlow, 1999; Burns, 2004; Progressive Accessibility Re-form Associates et al., 2006)
- lack of professional knowledge regarding design of accessible designs (Imric, 1999)
- Attitudinal barriers by industry and professionals (Canadian Centre on Disability Studies, 2007)
- Lack of support from the government (Canadian Centre on Disability Studies)
- Lack of consumer awareness (Canadian Centre on Disability Studies)

Obstacles and Solutions

Progressive Accessibility Re-form Associates et al. are a group of professionals in the building and development industry in Manitoba, Canada. In the report of their study on Visitable homes they presented some solutions to obstacles related to Visitable housing (Progressive Accessibility Re-form Associates et al., 2006, pp. 17-20). Their suggested solutions are summarized below.

a. Additional Costs Related to Visitability Features

Solution: Replace cost anxiety with facts by tracking additional costs in publicly funded visitable units, and providing this information to private sector builders. For affordable housing, visitability regulations must be accompanied by subsidies to cover any additional costs.

b. Consumer Interest and Demand

Solutions: Launch a multi-media public awareness campaign with user-friendly promotional materials to disseminate information about Visitability and its benefits.

c. Mandatory vs. Voluntary Visitable Housing

Many jurisdictions in the United States have experienced opposition and even court challenges against mandating Visitable housing (Maisel, 2005). Some view Visitability as restrictive and not reflective of the realities of the housing market.

Solutions: Use the market rather than regulation to drive change in privately-funded housing. Target consumers with a promotional campaign. Consumers will become aware of the benefits of Visitable housing, demand will increase, and builders/developers will meet the demand.

d. Adopting Innovation

Incorporating Visitable features means changing the way houses are designed, approved, constructed and marketed. Builders may have neither the interest nor the resources to adopt the concept of Visitability in their practice.

Solutions: Keep the requirements for Visitability simple and easy to understand. Provide various incentives to builders. Publicity may be as desirable an incentive as financial assistance, as it can help differentiate one builder from another in this competitive market. Sponsor demonstration projects will show how the requirements for Visitability are modest and almost invisible.

e. Housing Design and Construction for No Step Entry

Several trends in housing design and construction make a well integrated, accessible route to an entrance difficult to achieve. These include the desire for large basement windows, and the trend toward long homes on shallow lots with the drainage directed either to the front or back (not split). There may be some regulations that impede the provision of a no step entry. Split drainage may be discouraged in some cases due to concerns about blockage in rear yard drainage courses.

Solutions: Encourage lot grading plans with split drainage to reduce the grade differential between site and finished floor. Basements should have at least one quadrant without windows to allow earthwork against the building in support of an accessible walkway and entry area. Lot size and shape and house siting on the lot should support an accessible walkway to an entrance, and developer’s engineering consultants should have a provisional accessible route in mind when laying out the lots and designing the lot grades.

f. Ramp Aesthetics

Visitable homes with ramps are visually distinct from conventional homes. There is concern that homes with obvious accessibility features become targets for crime.

Solution: Ramps should not be the default solution for an accessible route to the entrance. Sloping walkways are the preferred option, providing a more attractive and useful means of access. A sloping walkway requires foresight in the design of the home and the lot grading. For renovations, ramps should be an integral part of outdoor living spaces rather than bisecting them, so that the houses do not appear as specifically designed for people with physical disabilities or older adults.

g. Ambiguity and Confusion over Visitability Requirements

Visitability is very specific with the three distinct features. Adding features may erode the essential simplicity of the concept, and this begins to blur the lines between Visitable homes and adaptable homes. Adding additional accessibility features to the Visitability requirements creates confusion. As the purpose and the requirements become less clear, the marketability is diminished, affecting support at the political and consumer ends of the spectrum.

Solutions: Keep it simple. Focus on basic Visitability features.

Recommendations to Promote Visitable Housing

Progressive Accessibility Re-form Associates et al. (2006) make recommendations for the government and those interested in promoting Visitable housing.

Recommendations for Policy Development

- Incorporate Visitability features in publicly funded housing projects
- Incorporate Visitability features in some units of private housing projects on publicly-owned lands
- Incorporate Visitability features upon renovation or upgrading of public housing
- Provide incentives to assist in the development of Visitable housing
- Provide assistance for non-profit and cooperative private businesses that upgrade or adapt housing units to be Visitable
- Develop a new renovation program for private, non-profit or co-op housing providers to assist in the cost of building Visitable homes
- Provide subsidies for affordable housing to incorporate Visitability features

Recommendations for Promotional Initiatives

- Market Visitability
- Launch an awareness campaign to educate stakeholders about the benefits of Visitability (e.g. seminars, website, pamphlets, design contest, show homes)
- Foster partnerships among stakeholders to promote Visitability
- Promote the incorporation of Visitability features in the National Building Code and provincial building codes
- Study the feasibility of developing and maintaining a housing registry and/or labelling program to identify Visitable homes
- Develop a renovation action plan for public housing units for Visitability
- Encourage educational institutions for professionals in the building and development industry to include the concept of Visitable housing in their curriculum
- Encourage mortgage and insurance providers to offer discounts to those who build, purchase, or renovate visitable/adaptable homes

Conclusion

Visitable homes require basic accessibility features, which make the homes more ‘visit-able’ and accessible than conventional homes. Given the limited accessibility requirements, it is important to distinguish Visitable design from Universal Design. The Visitability movement initially started in consideration of mainly people with physical disabilities. The movement was intended to make the community inclusive by making every home have basic accessibility, so that people with physical disabilities can be an active part of the social fabric of their community by visiting their families, friends, and neighbours without architectural barriers.

As the Visitability movement progresses, greater benefits of the Visitable design have been acknowledged. Some of the benefits identified in this literature include aging in place, safety, user-friendliness, and aesthetics, as well as accessibility for people with mobility difficulties. These benefits make Visitable homes attractive and marketable to broader consumer groups. However, the literature suggested some concerns related to Visitable housing, such as additional costs associated with building Visitable homes, loss of living space due to larger hallway and bathroom on the main floor, and site/construction issues. Researchers and professionals alike have presented recommendations that can mitigate the concerns and challenges related to Visitable housing. These recommendations include: careful planning at the onset of construction; incentives and supports from government; consumer awareness campaigns; awareness and training of building professionals; and policy development.

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ENVIRONMENTAL SCAN

Background

Purpose of the Environmental Scan

The purpose of the environmental scan is to acquire and use information about events, trends, policies, practices and resources with respect to Visitability. The knowledge will assist in developing and implementing strategies to promote Visitable housing. The environmental scan helps the researchers to understand the external forces that impact Visitability so that they may develop effective strategies to conduct their research. An environmental scan helps to avoid surprises, identifies threats and opportunities, and it helps to support strategic planning. In addition, it helps to identify gaps and provide and strategies to promote Visitable housing. Environmental scanning includes both looking at information (viewing) and looking for information (searching).

In this environmental scan, the following areas are viewed:

- Visitability initiatives and projects
- Policies with respect to Visitable housing
- Notable People in the Visitability field
- Government funding and incentives for Visitable and accessible housing
- Resources
- Personal Stories

Approach

Information and resources obtained through CCDS' previous work on Visitability informed the scan. In addition, an online search was conducted to examine Visitable housing projects that currently exist in Canada and to a lesser degree in the U.S. and other international countries. A variety of different key search terms including visitable, accessible, universal design and livability were used. Numerous telephone conversations and email correspondence with stakeholders provided detailed information on current and recent Visitability and Universal Design projects in Canada.

Initiatives and Projects

Although there are a variety of Visitable housing examples, there are several initiatives and projects that appear to be leaders in the field.

Bridgwater Project

Region: Winnipeg, Manitoba

Period: 2006 – 2021

Purpose/Goal: Proceeds from the development of the Bridgwater Neighbourhood are being directed towards revitalizing areas of need and are reinvested into a Housing Development and Rehabilitation Fund (HDRF), which supports the Manitoba government's overall housing strategy and the commitment to create 1,500 social housing units over five years.

Lead organization and contact:

Manitoba Housing and Renewal Corporation, Manitoba Government

Dwayne Rewniak, Director, Land Development

Phone: (204) 945-4703 Email: Dwayne.rewniak@mb.gov.ca

Project/Organization Website: <http://www.bridgwateneighbourhoods.com>

Project Description:

Bridgwater Project is a new housing development initiative involving the following three residential neighbourhoods and a Town Centre in the Waverly West area in south west Winnipeg.

Bridgwater Forest – Located in the north east corner on 375 acres of land, Bridgwater Forest is the area's first residential neighbourhood. The concept of Visitability had not been fully introduced when Bridgwater Forest was built, but was piloted in a few select phases. Of the planned 1,000 single family dwellings and 500 townhouse and apartment-style condos, it is estimated that there will be close to 40 single-family visitable homes and a couple of hundred units of multi-family housing built to the visitable standard. Over 90% of the lots in Bridgwater Forest have been sold and the neighbourhood will be completely occupied by 2015.

Bridgwater Lakes – Bridgwater Lakes is located in the north west corner on 312 acres of land. Bridgwater Lakes is being developed in four phases and will be comprised of 1,190 single-family homes; half of which are to be ‘Visitable’. There are currently over 250 occupied homes in the neighbourhood. This may be one of the first neighbourhood plans in Canada that enables and requires such a large proportion of housing to be built as Visitable.

Bridgwater Trails – Located in the south west quadrant, Bridgwater Trails is the newest residential neighbourhood, and 50% of the 1,040 single family lots have been designed as Visitable lots. Phase 1 lots are serviced and Manitoba Housing expects lots in this phase will be made available to Bridgwater builders in 2014.

The combined total of Visitable single family lots in Bridgwater Lakes and Bridgwater Trails is about 1,150 lots, excluding the multi-family sites which could all be Visitable.

Bridgwater Centre – Plans are underway for a 75 acre town centre that will feature a unique blend of commercial, residential, retail and office spaces. Over 1,000 units of multi-family housing is planned for the town centre, and visitable housing design features will be strongly encouraged.

Home Building Project by Spence Neighbourhood Association (SNA)

Region: Winnipeg, Manitoba

Period: 2009 to 2013

Purpose/Goal: To provide housing affordable to low income families.

Lead Organization and contact:

Spence Neighbourhood Association

Isabel Jerez, Housing Coordinator

Phone: (204) 783.2758 Email: housing@spenceneighbourhood.org

Project/Organization Website: www.spenceneighbourhood.org

Project Description

The Spence Neighbourhood Association (SNA) is a non-profit community housing organization. It covers a small area in inner city Winnipeg from Portage Avenue to Balmoral, and from Agnes

to Notre Dame. SNA launched this building project, building 35 – 37 houses, four of which were visitable. The houses were all in-fills and they were built on land that had been purchased from the city, by the SNA. The buildings were built after much community consultation and they were all sold to low income families.

Home for Life™

Region: Edmonton, Alberta

Period: The project is planning to have the Guidelines developed and printed by the end December 2013

Purpose/Goal: To develop guidelines to promote inclusion. The main objective of the Home for Life™ initiative is to develop guidelines to build residential homes that are accessible for people of all abilities.

Lead Organization and contact:

The lead organization is a subcommittee of the Vision for an Age Friendly Edmonton. It is funded by the City of Edmonton.

Grace Maier

Phone: (780) 735-8834 Email: Grace.Maier@albertahealthservices.ca

Project/Organization Website: <http://www.emmanuelhome.ab.ca/>

Project Description:

The Home for Life™ Guidelines are intended to be used as a tool to encourage the inclusion of user-friendly, safe design features which seek to enhance the quality of life for all occupants at all stages of life in new construction. The Guideline serves as a checklist to achieve this goal. Currently, there is a gap in the supply of single family housing which has physically accessible necessities of home, such as: kitchens, bathrooms and a bedroom, for people of all ages and mobility levels. There are unlimited, cost effective ways to create such Homes for Life™ easily and with minimum expense, to meet the changing needs of the occupants by taking into account, the following categories:

- Ease of entry regardless of mobility or transportation aids (walkers, wheelchairs, strollers, etc)
- Ease of movement safely in an environment that is risk averse:
 - appropriate lighting with lower light switches and higher electrical outlets
 - appropriate flooring
 - wider hallways and doorways;

- First floor to include: three-piece bathroom (or provision of space to support three piece, bathroom with a curb-less shower), bedroom, laundry room, and kitchen
- Easy and cost-effective adaptation

The ultimate goal for these design approaches is to allow people to “age in place”, so that they can remain in their own homes and as part of their existing communities for as long as possible. The funder for the project is the City of Edmonton

Hunt Coulee Village (HCV)

Region: County of Rocky View, near Calgary, Alberta

Period: Completion by September, 2016

Purpose/Goal: To provide housing options that allow aging residents to be better supported and independent in their rural environments.

Lead organization and contacts:

The Western Rocky View Communities Development Society (CDS)

Lori Kovacs

Phone: 403-828-7826,

Email: lori@theruralway.ca

Project/Organization Website: <http://theruralway.ca>

Project description:

Hunt Coulee Village (HCV) is a leading edge development project in Alberta that preserves agricultural lands while balancing a community need for seniors housing.

Targeted to older rural adults (55+), the Village will be built in a country setting, featuring low density housing, access to the open natural environment, amenities such as community gardens, a greenhouse, workshops and a back-to-the-basics philosophy of neighbor helping neighbor care. One of the main principles is that partners incorporate universal design throughout the buildings and landscaping.

The project contemplates an initial phase of 60 units (mix of townhomes and cottage style single family units) and amenity facilities. The total planned density for the site is for 120 units. Interest and inquiries indicate the HCV prototype is a market opportunity with potential for growth in the larger rural senior housing market.

Flex-Plex Housing Affordability Project

Region: Saanich, British Columbia

Period: 2001 - 2010

Purpose/Goal: The intent of the project was to create accessible, affordable housing and the first legal suites in Saanich in a project that could be replicated in the region. Legal suites, also known as legal secondary suites for in-laws, are permitted in defined areas of Saanich. They are wholly contained within the single family dwelling and are not connected to the main house.

Lead Organization and contact:

The Victoria Home Builders Association initiated the project, secured the land, hired the designers, etc. They handed it off to Habitat for Humanity to build the project.

Project description:

This project was built to be accessible to persons with limited mobility. Four of the five units would qualify as Visitable Housing. However, not all of the units are equally or fully accessible. Two of the five units have accessible one bedroom rental units built into the lower floor (which are accessible through an external chair lift, wider doorways, and wheel-chair accessible shower). One of the three multi-level units was modified to accommodate a family with a child who uses a wheelchair. This unit (and only this unit) has an internal elevator as well as being appropriately equipped (with lifts) to move the child from her bedroom to the bathroom)

Habitat for Humanity Victoria Project

Region: British Columbia

Purpose/Goal:

Funder: The project was funded by corporate sponsors, foundation grants, government grants (via BC Housing and “forgivable” loans from CMHC), special interests groups, private individuals and in-kind donations.

Project/Organization Website:

The Victoria Home Builders Association - www.vhba.ca

The Habitat for Humanity - www.habitatvictoria.com

Lead Organization and contact:

Yolanda M. Meijer, Executive Director

Habitat for Humanity Victoria

Phone: 250-220-4559 / ReStore 250-386-7867 Email: execdirector@habitatvictoria.com

Casey Edge

Executive Director

Victoria Home Builders Association

Phone: (250) 383-5044

Email: cedge@vhba.ca

Project Description:

The District of Saanich has developed Adaptable Housing regulations and guidelines with mandatory building standards for Basic Adaptable Housing and Voluntary Design Guidelines that apply to all newly constructed apartment buildings that share a corridor and are serviced by elevator to provide greater accessibility and adaptability.

When Adaptable Housing regulations came into effect, all building permits issued for apartment buildings with an elevator had to comply with the regulation. During the initial 3 year period, it was reported that building permits for 23 buildings (not projects), with a total of 656 dwelling units, have been issued under the adaptable housing requirements.

Abbotsford Seniors Housing Study

Region: Abbotsford, British Columbia

Period: Started in 2010

Purpose/Goal: This study is intended to review housing options for a 65 years or older population

Lead Organization and contact: City of Abbotsford

Phone: (605) 864-5510

Project/Organization Website: www.abbotsford.ca

Project Description:

In the Abbotsford Seniors Housing Study, project participants reviewed numerous housing options for a population of 65 years or older. [That population is expected to double from 13.3% to 19.5% (37,005) by 2031.] Focus was placed on housing need, affordability, accessibility, Visitability, as well as innovative housing types and design. The participants examined housing options such as Visitable housing, adaptable housing, multi-generational housing, secondary and garden suites, cohousing, pocket housing, and various senior housing projects. As a result of their consultation, it was recommended that current and future housing should focus on affordability, accessibility and visitability. It was determined that the policy, zoning, and bylaw review could strengthen the vision of creating an inclusive complete community.

Measuring Up the North

Region: Northern British Columbia communities including Queen Charlotte Island, Valemount, Fort Nelson and 100 Mile House

Purpose/Goal: To create livable, disability-friendly, age-friendly, universally designed, inclusive communities that benefit for all citizens and visitors.

Lead Organization and contact:

Laurie Ringaert

lringaert@gmail.com

Project/Organization Website: <http://measureupthenorth.com>

Project Description:

The Project used a community participatory action and community development approach to empower and build community capacity. The principles of the Project included local control by local partners, universal design, facilitation and support of planning accessibility and inclusion throughout the Project, bringing together the right people and ensuring the dignity, respect and inclusion of all partners within an intergenerational approach. It was anticipated there would be increased participation and inclusion of persons with disabilities and older adults in all aspects of the community.

Successes ranged from numerous northern communities building Visitable environments with accessible trails, sidewalks, transportation, businesses, child care centres, recreational sites, and housing. Additional communities established their own committees. Changes included: many people with disabilities and older adults became active with local government through serving on the committees, many people became employed, and changes in attitudes were seen in local governments and businesses. Twenty communities received the first MUTN Implementation Award in May 2008.

The Prince George Visitable Housing (VH) Project

Region: Prince George, British Columbia

Period: Completed in 2011

Purpose/Goal: The City set up a Visitable Housing Project with the objective of compiling a comprehensive information package to assist the City in developing policies, guidelines or mandatory regulations to promote Visitable housing for new single-or semi-detached homes.

Lead Organization and contact: The City of Prince George

Tiina Watt, Supervisor, Long Range Planning

Phone: (250) 561-7731 Email: kwatt@city.pg.bc.ca

Project/Organization Website: www.princegeorge.ca

<http://www.princegeorge.ca/citybusiness/longrangeplanning/studies/VHP/pages/default.aspx>

Project Description:

The Prince George Visitable Housing (VH) Project was developed to prepare objectives, policies, voluntary Visitable guidelines and mandatory Visitable regulations to encourage the application of Visitable design and construction for new single and two-family home construction in the city.

The City of Prince George undertook an initiative aimed at implementing Visitable housing. The project identified a number of best practices. In March 2011, the City approved the recommendations for voluntary guidelines and mandatory regulations. This includes preparing objectives and policies for Visitable housing within the Official Community Plan review that: identifies the creation of Visitable housing as a community objective; contemplates further analysis of Visitable housing within an amenity contribution policy and incentives packages; provides direction to consider the Visitable Housing Voluntary Design Guidelines as part of the development review process; and requires that, on land sold by the City of Prince George, no less than 15% of newly constructed market-rate single and semi-detached homes be Visitable and all newly constructed affordable (non-market) single and semi-detached homes be Visitable.

The researched practices, stakeholder consultation and the Prince George Home Builders survey identified the participation of home builders is key to success and that the City should

continue to support accessibility in the community by providing a leadership role through its own land disposition, but also as a key source of information, and by facilitating the conversation that needs to begin with home builders

Tr'ondek Hwech'in Project

Region: Tr'ondek Hwech'in, Dawson City, Yukon

Period: The Northern Sustainable Housing initiative started in 2002 and will likely be completed in 2015 once the post-occupancy performance monitoring of the Arviat project has been completed. CMHC is currently working with northern housing stakeholders to explore opportunities to extend the Northern Sustainable Housing initiative to multi-unit residential buildings. If successful, the initiative would run between 2013 through 2016.

Purpose/Goal: The project is part of CMHC's Northern Sustainable Housing Initiative. Under this initiative, CMHC is working with northern housing providers to design, build and demonstrate models for northern housing that are highly energy efficient and culturally appropriate. The homes built under the initiative were designed in consideration of CMHC's "FlexHouse" concept. FlexHousing focuses on sustainability, accessibility, Visitability, aging-in-place and adaptability.

Project Description:

Tr'ondek Hwech'in is a First Nations community in Dawson. The project has built two homes in Tr'ondek Hwech'in. To the extent possible, the homes include FlexHouse features that allow the homes to better meet occupant needs as their lives evolve and change over time. CMHC targeted one Northern Sustainable Housing project in each territory. Thus far, the reaction of the housing agencies, stakeholders and occupants have been very positive.

Lead Organization and contact:

Canada Mortgage and Housing Corporation and NWT Housing Corporation

Cate Soroczan (CMHC)

Phone: (613) 748-2284

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Duncan Hill, P. Eng. Sustainable Housing Policy and Research Policy, Research and Planning

Phone: (613) 748-2984

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Scott Reid (NWT Housing Corporation Contact), Director, Infrastructure Services

Phone: (867) 873-7875

Email: Scott_Reid@gov.nt.ca

Project/Organization Website:

http://www.energy.gov.yk.ca/pdf/bill_semple_the_northern_sustainable_house_energy_issues_and_solutions.pdf

Canada Mortgage and Housing Corporation Initiatives

Below are a number of CMHC project profile websites. For ease of access, the name of the project, the location and the number of units has been provided for each site.

1) Ken Val United church Suites

Three United Churches in the Kennebecasis Valley, developed two buildings – one for seniors, and one for persons with disabilities, in partnership with CMHC.

- Quispamsis, New Brunswick
- 16 units (12 units for seniors; 4 unit barrier-free residence for people with disabilities.)

http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Ken-Val-Suites_EN.pdf

2) The Homestead

The Homestead, an affordable rental project got its initial boost in 2003 when the town of Cochrane agreed to provide a site through a 60-year lease with a nominal rent. CMHC and the provincial government provided over one million dollars through the Affordable Housing Initiative.

- Cochrane, Alberta
- 21 units (2 units are wheelchair accessible)

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Homestead_EN.pdf

3) Alice Bissett Residence

CMHC, Alberta government, Calgary, Calgary Homeless Foundation, Calgary Home Builders Foundation, Alberta Gaming and Horizon Housing Society partnered in providing supportive and affordable housing for a diverse clientele. Alice Bissett Residence opened in 2009.

- Calgary, Alberta
- 114 units for persons with mental illnesses, brain injuries, physical disabilities, and low-income seniors and families. A 5 bedroom apartment pod is for five brain-injured tenants who will receive round-the-clock support.

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Alice_Bissett_EN.pdf

4) Jenny’s Spring Housing Co-operative

CMHC, New Brunswick government, Jenny’s Spring Housing Co-operative collaborated to provide affordable housing. Through the Affordable Housing Initiative, the federal and provincial governments provided investments to ensure the success of the building. The new building received \$480,000 in federal funding toward construction costs, and \$971,655 in rent supplements from the Province of New Brunswick.

- Saint John, New Brunswick
- 12 units, including two accessible apartments

Reference: <http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Jenny-Spring-Co-op-EN.pdf>

5) TVM Doctor Powers Residence

The TVM Doctor Powers Residences provide 24 affordable, accessible units for seniors and people with disabilities in a redeveloped elementary school. CMHC, the government of Ontario, County of Northumberland, Municipality of the Town of Port Hope, Kawartha Pine Ridge School Board and Habitat for Humanity Northmberland were involved.

- Port Hope, Ontario
- 24 affordable, accessible units for seniors and people with disabilities in a redeveloped elementary school

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/TVM_Schoolhouse_EN.pdf

6) 59 Adelaide

A local entrepreneur used a hands-on approach to create affordable housing for lower income households and persons with disabilities. Remmcor Developments, CMHC, the Government of Ontario, the City of the Municipality of Chatham-Kent and the Ontario March of Dimes were involved.

- Chatham, Ontario
- 14 units (4 of the units are wheelchair accessible)

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/59_Adelaide_EN.pdf

7) Three Links Co-op

The Three Links Housing Co-op was originally built in 1983 under the Federal Co-operative housing Program. By 2004, the four accessible units needed upgrading to meet design standards required for wheelchair access. Through the CMHC Residential Rehabilitation

Assistance Program for Persons with Disabilities the project received \$72,000 of the \$93,375 in renovation costs.

- Barrie, Ontario
- The Co-op consists of 80 units and four bungalows are designed for members with disabilities.

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/66734_EN_w.pdf

Bolingbrook Initiative

Region: Bolingbrook, Illinois, the United States

Period: 1999 – 2003 - The first draft was developed in 1999 at which time, encouraged builders to volunteer compliance with the proposed visitability code. All of the builders to complied voluntarily, with all or most criteria required by the proposed code. The Visitability Code came into law on June 24th, 2003.

Purpose/Goal: The purpose of this initiative was to establish the minimum regulations for the design, installation and construction of single family and attached single family homes, by providing reasonable criteria for Visitability by persons with disabilities.

Lead Organization and contact: Village of Bolingbrook

Daniel G. Buonamici, Building Commissioner

Phone: (630) 226-8470 Email: dbuonami@bolingbrook.com

Project/Organization Website: <http://crilhayward.org/policies-advocacy/docs/Bolingbrook-UD-article.pdf>

Project Description:

Bolingbrook did not have a specific building initiative. Instead, the village developed a Visitability code. In late 1998, a member of Bolingbrook's disability community met with the Mayor and Village staff and highlighted the importance of visitable homes and the growing need for this type of housing product. Subsequent to the meeting, the Mayor instructed staff to determine the cost of building visitable housing and to draft policy on visitable housing for approval by the community. The survey determined that to build a new house with visitability features would cost an average price increase of \$2911. (Approximately 1.5%) per home.

Name of the ordinance: Bolingbrook Visitability Code

Initially, the builders were opposed to these changes. After meeting with Village staff and members of the disability community, along with architects and other design professionals, many of the builders changed their point of view and were on board with the proposed changes.

Currently Bolingbrook has close to 3000 homes that are Visitable and some subdivisions are still under construction. The town's population is 74,000. The number of people that have

disabilities and live in Bolingbrook is growing partially due to the number of accessible homes in the community, but also due to the fact that people can stay in their homes should they acquire disabilities. They are not forced to find accessible housing elsewhere.

People appreciate the larger doorways and hallways and most really appreciate the no-step entrance. Those with young children in strollers, tote carts used for shopping, those who are moving large appliances or pieces of furniture all see the value in the Visitability features. “Over the last few years I have found I can use these features as selling points, because eventually people want to get top dollar for their homes,” said Eric Jensen, a sales consultant for Realty World Jensen, Bolingbrook.

Two new subdivisions are under construction. One is a single family home subdivision and the other is a town-home subdivision in Bolingbrook.

Notable People in Visitability or Universal Design

Glen Manning

Affiliation: Landscape Architect, HTFC Planning & Design

Region: Manitoba

Contact Information: (204) 944-9907 gmanning@htfc.mb.ca

Involvement with Visitability/Universal Design:

Glen is a landscape architect and principal with HTFC Planning & Design, keenly interested in the quality of accessible public spaces. He has provided universal design services and advice on a number of major public works in Winnipeg, including the Disraeli Freeway rehabilitation, the Manitoba Hydro Building, and Osborne Bridge, receiving Accessibility Awards from the City of Winnipeg for the Provencher paired bridges project and Steinkopf Gardens rehabilitation. Glen was the lead author of Manitoba Housing Renewal Corporation’s visitable housing policy manual, and led the Province’s Visitable Housing Consultant team between 2006 and 2008. Following this he joined CCDS’s Think Tank on Visitability and remained an active member of CCDS’s Visitable Housing Working Group until the project wrapped up in 2010.

Eleanor Smith

Affiliation: Concrete Change

Region: USA

Contact Information: (404) 378-7455 eleanors@mindspring.com

Involvement with Visitability/Universal Design:

Eleanor Smith is the founder of Concrete Change, an organization whose mission is to make sure all housing built in the U.S. is accessible to those with disabilities. She brought awareness to three tenets of visitability: 36" wide doors, reinforced bathroom walls, and one zero-step entrance.

Jake Pauls

Affiliation: Jake Pauls Consulting Services

Region: International

Contact Information: bldguse@aol.com

Involvement in Visitability/Universal Design:

Jake has researched and advocated for technical changes and policy issues in codes/standards bridging ergonomics (human factors) in building safety with standards, codes and regulations as well as personal-injury litigation. His work has focused on pervasive hazards in homes.

Brad McCannell

Affiliation: Founder and president of Canadian Barrier Free Design Inc. (CBFD)

Region: Vancouver, British Columbia

Contact Information: (604) 838-6927 info@barrierfreedesign.ca

Involvement in Visitability/Universal Design:

In 1990, Brad formed Canadian Barrier Free Design Inc. (CBFD) to fill the gap between the application of the building code and the real needs of the community of persons with disabilities. He has extensive experience in developing the entire accessible environment including retrofitting existing facilities, new construction planning, employee training as well as developing tools for human resource management as it relates to people with disabilities.

He is the Access Consultant on several large British Columbia projects including the 2010 Winter Olympic and Paralympic Games, the Vancouver Convention Centre Expansion Project, the re-development of the Vancouver International Airport, and the Skytrain rapid transit system.

Avi Friedman

Affiliation: Architect, McGill School of Architecture

Region: Montreal, Quebec

Contact Information: (514) 398-4923

Involvement in Visitability/Universal Design:

The concept of the flexible housing concept has its roots in the innovative Grow Home¹ developed in 1990 by Avi Friedman and Witold Rybczynski of the McGill University School of Architecture in Montréal. Designed to be affordable for low-income households, the Grow Home incorporated flexible and adaptable living spaces within a small footprint (approximately 93 m² / 1,000 sq. ft. in a 4.3 m / 14 ft. wide, three-storey townhouse).

Building on the Grow Home concept, and the subsequent Next Home, CMHC created FlexHousing in 1995 as part of the universal design/inclusive design movement.

In 1988 Friedman he co-founded the Affordable Homes Program at the McGill School of Architecture, where he is a Professor.

Ron Wickman

Affiliation: Architect, Wickman Ron Architect

Region: Edmonton, Alberta

Contact Information: (780) 430-9935 rwickman@shaw.ca

Involvement in Visitability/Universal Design:

For more than 10 years, Ron Wickman has been a leading advocate for barrier-free design in buildings and landscapes. As an architect, his commitment to accessible housing and his award-winning practical and functional designs have earned him national recognition as an expert in accessibility and barrier-free design. "As an architect, Ron Wickman has been a great champion of universal design with the goal of designing buildings and facilities so that they serve the greatest number of people, regardless of ability," notes one of his clients.

Bob Topping

Affiliation: Architect, Designable Environments Inc.

Region: Ontario

Contact Information: (905) 278-0665 bob.topping@designable.net

Involvement in Visitability/Universal Design:

Bob Topping is a Canadian architect. For over 20 years he has focused his work on accessibility issues and universal design through his consulting company, Designable Environments Inc. Bob

has worked as an accessibility specialist on many projects in Canada including the Mississauga Bus Rapid Transit System, Air Canada Centre, Ricoh Coliseum, Windsor Casino and the Four Seasons Center for the Performing Arts. As the author of numerous municipal accessibility design standards, and through his work on technical committees for both Canadian and international accessibility standards, Bob has extensive experience in accessibility-related legislation and standards development, including the Accessibility for Ontarians with Disabilities Act (AODA).

Laurie Ringaert

Affiliation: Accessibility consultant

Region: International

Contact Information: lringaert@gmail.com

Involvement in visitability/Universal Design:

Project Director of Measuring of the North in Prince George, BC, working for the North Central Municipal Association and the BC Paraplegic Association. Laurie Ringaert is a researcher, educator, consultant and occupational therapist who has been involved in universal design/access issues for over 30 years. She has worked on many codes/standards and policy committees nationally and internationally. Laurie is also considered to be a national and international leader in research, evaluation, education, policy analysis and consultation on universal design of communities, aging/disability issues, age-friendly communities, age-friendly tourism, chronic conditions, healthy built environments, community-based health programs, participatory action research and related public health issues.

Lanny L. M. Silver

Affiliation: Architect, Lanny Silver Architect

Region: Winnipeg, Manitoba

Contact Information: (204) 944-0464 info@lannysilverarchitect.ca

Involvement in Visitability/Universal Design:

In 2007, Silver and his colleagues published a report, “*Visitable Housing, Cost Estimate summary.*” The report is based on a case study which examined costs involved in building two single-family detached houses in Winnipeg. The summary indicated that interior costs are negligible if planned at the outset. Most of the identified additional costs related to creating the accessible route to the door and the no step entry. In the design case studies, these modifications added value through creating more amenity space and more interest in the

landscape. He said that Visitable homes built in isolation without any pre-planning are the most expensive option. The strategy of pairing visitable homes to avoid retaining walls along the side yards should be considered if visitable homes are to be incorporated into a development. Total integration is implemented by the "hands on" approach of Mr. Silver, who completely involves himself in all stages of the projects from the beginning to the end of the project.

Edward Steinfeld

Affiliation: Architect and gerontologist, The State University of New York, Buffalo (UB).

Region: New York

Contact Information: (716) 829-5899 arced@buffalo.edu

Involvement in Visitability/Universal Design:

Dr. Steinfeld is a Professor of Architecture and Director of the IDeA Center, which he founded in 1984. He serves on the Board of Directors of the Global Universal Design Commission, Inc. He has directed over 30 sponsored research projects, including two centers of excellence grants from the National Institute on Disability and Rehabilitation Research (NIDRR), one on Universal Design and the Built Environment (RERC-UD) and the other on Accessible Public Transportation (RERC-APT). Many of his publications are considered key references in the fields of accessible and universal design.

Elaine Ostroff

Affiliation: Director of Access to Design Professions

Region: Boston, Massachusetts

Contact Information: (617) 695-1225 (v/tty) info@HumanCenteredDesign.org

Involvement in Visitability/Universal Design:

Elaine Ostroff, Hon. AIA, co-founded Adaptive Environments in 1978, which is now the Institute for Human Centered Design (IHCD). In 1989, she developed the Universal Design Education Project (UDEP) with design educators. UDEP became an international model for infusing universal design in professional design curriculum, emphasizing the involvement of people with functional limitations in the teaching and learning process. She coined the term "user/expert" to identify the individuals whose personal experiences give them unique critical capacity to evaluate environments. She directs the Access to Design Professions Project at IHCD, to encourage people with disabilities to enter the design profession as a way to improve the practice of universal design.

Jim Mueller

Affiliation: Founder of J.L. Mueller, Inc
Wireless Rehabilitation Engineering Research Center

Region: Virginia, U.S.A.

Contact Information: (703) 222-5808 jim@jlmueller.com

Involvement in Visitability/Universal Design:

Jim Mueller is an industrial designer with more than 20 years of experience in assistive technology, disability management, and universal design. He is recognized as one of the most experienced practitioners and advocates of universal design - design for people of all ages and abilities - and is one of the authors of the 7 Principles of Universal Design. His clients have included Federal and State agencies, private employers, disability insurers, and product manufacturers. His design projects have included a Technical Support Facility for a rehabilitation center, concealed head protection for seizure-prone individuals, a portable, wheelchair-accessible miniature golf course for an elementary school, and an experimental electric wheelchair for testing seating and lightweight frame design. He has also consulted on the design of business furniture, personal computers, and telecommunications products.

James Lenker

Affiliation: Associate Professor in the Department Rehabilitation Sciences and the Director of the Graduate Certificate Program in Assistive and Rehabilitation Technology at the University at Buffalo

Region: New York

Contact Information: (716) 829-6726 lenker@buffalo.edu

Involvement in Visitability/Universal Design:

Dr. Lenker teaches in the Occupational Therapy program and directs the Graduate Certificate Program in Assistive and Rehabilitation Technology. His research experience includes projects that bridge engineering and technology to the fields of universal design and occupational therapy. At the IDEA Center, Dr. Lenker has directed research projects for the Rehabilitation Engineering Research Center (RERC) on Universal Design, as well as the RERC on Accessible Public Transportation (RERC-APT). His UD research focuses on 3 areas: (a) outcomes research associated with home modifications, (b) best practice strategies for implementation of Complete Streets projects, and (c) evaluation of consumer product usability for adults with disabilities.

Jordana Maisel

Affiliation: Director of Outreach and Policy Studies, Co-Director of the RERC on Universal Design in the Built Environment, and Adjunct Assistant Professor, School of Architecture and Planning, at the University at Buffalo

Region: New York

Contact Information: (716) 829-5902 ap-idea@buffalo.edu

Involvement in Visitability/Universal Design:

As an urban planner, Ms. Maisel's interests include improving the built environment, fostering neighborhood development and revitalization, and developing public policy. Her research includes projects on the effectiveness of universal design, policy and planning issues related to inclusive housing design strategies and streetscape design, and evidence based guidelines for universal design. She is the co-author of *Universal Design: Creating Inclusive Environments* (Wiley & Sons, Inc., 2012).

Personal Stories

Mind The Gap

An Architect Devotes Himself Entirely to the Pursuit of Universal Access Using Some Very Basic Strategies.

By: *RON WICKMAN* 2008-04-01

I was only three months old when my father was injured in an industrial accident that rendered him a paraplegic. Growing up after the accident, I experienced the built environment from the unique perspective of travelling around with someone who uses a wheelchair. My father and I rarely entered a building in the same way as the majority of others; the service entrance was the norm for us. We were also less likely to visit friends at their homes. Helping my father up to the front door from a set of exterior stairs was both dangerous and a reminder that he had less independence than others. Even when we did visit someone else's home, our stay was usually short because my father was unable to use the washroom. It is because of these types of experiences that I chose to work in the field of architecture. And working as an architect, I now realize how easy it is to design a building or space to be more useable by more people, including persons with disabilities. The concept of "visitability" is one of the simplest and most economical approaches to universal design that can address homeowners' and community needs over time, contributing to a more flexible and sustainable built environment. Visitability ensures that everyone--regardless of mobility--will be able to at least visit someone else's home and use the washroom.

My personal quest is to help other architects learn more about universal design more generally and visitability specifically. Frank Lloyd Wright stated that "form and function are one." To me, this means that architecture involves making buildings and spaces as accessible to as many people as possible. Today, too many architects focus on the business and aesthetic dimensions of design, and little attention is given to the end users of their creations. I know from personal experience the benefits of focusing on the end users of a building or space. I have had the satisfaction of seeing someone independently access

his/her home or a public building for which I am responsible. With my own house renovation, I poured a new sidewalk leading to the front door that provided smooth, on-grade access straight into the front door. Before the renovation, three steps led up to the front door, and my wheelchair-bound father had to park his van in the driveway and phone us to come out and help him inside. After the renovation, my father can now wheel himself straight into our family home. It was a seemingly small design gesture--but one with a huge emotional impact.

<http://www.canadianarchitect.com/news/mind-the-gap/1000221485/>

Related Government Subsidies and Assistance in Canada

Canadian Provinces and Territories provide cost savings or assistance to homeowners and landlords for accessibility modifications for persons with disabilities and for seniors.

British Columbia

The Home Adaptations for Independence (HAFI) program provides financial assistance to help eligible low-income seniors and people with disabilities with home modifications for accessible, safe and independent living. For more information, visit

http://www.bchousing.org/Options/Home_Renovations

Manitoba

The Home Adaptations for Seniors provides assistance to homeowners and landlords for accessibility modifications for seniors. The province also offers Residential Adaptations for Disabilities Program which consists of forgivable loans to homeowners and landlords for accessibility modifications for persons with disabilities. Both programs are included under the CMHC — Manitoba Agreement for Investment in Affordable Housing. More information about this program is available at

http://www.gov.mb.ca/housing/pubs/repair_programs/residential_adaptations_disabilities_english.pdf.

Ontario

Existing Funding for Home Modifications for Seniors & Persons with Disabilities in Ontario are as follows.

1) Home & Vehicle Modifications Program

- Funded by Ministry of Community and Social Services, administered by Ontario March of Dimes
- \$15,000 lifetime maximum for home modifications

Reference: <http://www.marchofdimes.ca/EN/programs/hvmp/Pages/HomeandVehicle.aspx>

2) Ontario Renovates

- The Ontario Renovates program is funded by the federal and provincial governments through the Investment in Affordable Housing (IAH) program. The Ontario Renovates Program offers financial assistance to low to moderate income families to increase accessibility of their unit through modifications and adaptation
- The Ontario Renovates components that relate to home accessibility consist of two sub components:
 - Home Repair to assist low to moderate income home owner household to increase accessibility of their unit through modifications and adaptations
 - Multi-Unit Rehabilitation to assist landlords of eligible affordable rental projects to rehabilitate units that require essential repairs and/or modify units to increase accessibility
- General eligible renovations include;
 - Modifications to increase accessibility related to housing and reasonably related to the occupant's disability including: ramps, handrails, chair and bath lifts, height adjustments to countertops, cues for doorbells/fire alarms
 - Creation of self-contained secondary suites for affordable rental purposes and garden suites for seniors and/or persons with disabilities.
 - Funding for accessibility repairs, up to a maximum of \$3,500 is in the form of a grant. Funding in excess of \$3500 is in the form of a forgivable loan. The actual amount of assistance is based on the cost of repairs. Eligibility for the home repair subcomponent is means tested and requires home ownership.

Reference: <http://www.mah.gov.on.ca/AssetFactory.aspx?did=9288>

3) Workplace Safety & Insurance Board (WSIB)

- Unlimited funds but based on injury and circumstances
- Occupational therapists do home assessments.

4) Veterans Affairs Canada

- Veteran (no limit) or spouse (\$5,500) eligible

5) Settlements from Auto Insurance and Personal Injury Lawsuits

- Auto accidents, medical malpractice, slip and fall
- Occupational therapists conduct needs assessment for legal counsel.

6) Healthy Home Renovation Tax Credit

- Tax credit worth up to \$1,500 each year, calculated as 15 per cent of up to \$10,000 in eligible home renovation expenses that will help seniors stay safely in their homes.

Reference: <http://www.mah.gov.on.ca/AssetFactory.aspx?did=9288>

New Brunswick

Forgivable loans are available to homeowners occupying substandard housing to undertake repairs, and to homeowners and landlords to undertake accessibility modifications to units occupied by seniors or persons with disabilities.

More information about this program is available at

http://www2.gnb.ca/content/gnb/en/services/services_renderer.8735.html

The province also offers Housing Assistance for Persons with Disabilities

Forgivable in the form of loans to homeowners or landlords to undertake accessibility modifications or create a secondary/garden suite units occupied by persons with disabilities.

More information about this program is available at

http://www2.gnb.ca/content/gnb/en/services/services_renderer.19576.html

Nova Scotia

Financial assistance is available to senior citizens for repairs to their home that represent a threat to health or safety. More information about the Senior Citizens Assistance Program is available at

<http://www.gov.ns.ca/coms/housing/seniors/SeniorCitizensAssistance.html>

In addition, Nova Scotia also has the Home Adaptations for Seniors' Independence (HASI) which provides assistance to homeowners for adaptations to extend the time that low-income seniors can live in their own homes independently. More information about this program is available at

<http://www.gov.ns.ca/coms/housing/seniors/SeniorsIndependence.html>

The province also offers a Disabled Residential Rehabilitation Assistance Program (RRAP) for Persons with Disabilities which is financial assistance for accessibility modifications for persons with disabilities. For more information, follow the following links.

<http://www.gov.ns.ca/coms/housing/homeowner/DDRAPforHomeowners.html>

<http://www.gov.ns.ca/coms/housing/landlords/DRRAPforLandlords.html>

Saskatchewan

The Saskatchewan Home Repair Program, Adaptations for Independence offers forgivable loans to undertake accessibility work to modify dwellings occupied by persons with disabilities. More information about this program is available at

<http://www.socialservices.gov.sk.ca/H08-FS.pdf>

The Home Adaptations for Seniors' Independence (HASI)

This program offers assistance in the form of a forgivable loan of up to \$3,500 for minor home adaptations that will enable low-income seniors with age-related physical issues to continue living independently and safely in their home.

Provinces and Territories may choose to design and deliver renovation programs that are cost-shared with the federal government. Information on Provincially/Territorially designed and delivered housing programs are provided under Affordable Housing Programs Across Canada.

Reference: http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_004.cfm

Residential Rehabilitation Assistance Program for Persons with Disabilities

Canada Mortgage and Housing Corporation (CMHC) offers financial assistance to allow homeowners and landlords to pay for modifications to make their property more accessible to persons with disabilities. These modifications are intended to eliminate physical barriers, imminent safety risks and improve the ability to meet the demands of daily living within the home.

Modifications must be related to housing and reasonably related to the occupant's disability. Examples of eligible modifications are ramps, handrails, chair lifts, bath lifts, height adjustments to countertops and cues for doorbells/fire alarms.

If the cost for modifications is more than the maximum forgivable loan available, the owner will be required to cover the additional cost.

To be eligible, the household income and house value must be at or below established ceilings for the geographic location of the property and the dwelling must be occupied or intended for occupancy by a person with a disability

RRAP-D — Residential Rehabilitation Assistance Program for Persons with Disabilities

Reference: http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_003.cfm

Veterans Independence Program

The Veterans Independence Program (VIP) helps veterans remain independent and self-sufficient in their home and community. Depending on the individuals' circumstances and health needs they may qualify for financial assistance to obtain services such as grounds maintenance; housekeeping; personal care; access to nutrition; health and support services provided by a health professional. VIP does not replace other federal, provincial or municipal programs. Instead its role is to complement existing programs to help meet individual needs. In an interview with Veteran's Affairs, it was reported that home adaptations to modify areas such as bathrooms, kitchens and doorways so that it is easier to perform basic everyday activities, funds can provided for modifications based on eligibility and an occupational therapist's assessment.

Resources

VisitableHousingCanada.Com

Author: Canadian Centre on Disability Studies (CCDS)

Description: This website contains information about a national Visitability project that CCDS is carrying out. The website also contains an array of information and resources related to Visitable housing.

A Visit from Pops

Author: Ron Wickman

Description: An illustrated children's book about visitability (in press)

Libby and the Cape of Visitability

Authors: Eleanor Smith and Nadeen Green

Description: A children's book. Written for children ages 8-13, this book raises awareness of the exclusion created when houses are not built with simple features that allow wheelchair users to visit or live in them.

Visitable Housing: Community Building through Visitable & Adaptable Housing

Authors: Progressive Accessibility Re-Form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2006)

Description: This report presents a comprehensive review of Visitable housing. The report describes the concept of Visitable housing, related terminology, and Visitability design requirements, and provides solutions to obstacles, recommendations and strategies to promote Visitable housing.

Available at: <http://visitablehousingcanada.com>

Canada MHC Maintaining Seniors' Independence through Home Adaptations

Author: Canadian Mortgage and Housing Corporation (2009)

Description: A self-assessment guide. A detailed guide for seniors or caregivers to assess challenges in the home environment, with suggested checklists of strategies to compensate for the challenges in each part of the home.

Available at: <https://www03.cmhc-schl.gc.ca/catalog/productDetail.cfm?cat=17&itm=13&lang=en&fr=1383190119687>

Welcome Home: Universal Design, Sustainable Design, and Baby Boomers

Author: 2012 American Institute of Architects National Convention and Design Exposition

Description: Proceedings of the 2012 American Institute of Architects National Convention and Design Exposition. The session presents the results of a nationwide survey to prioritize the features of home design important to prospective buyers within the baby boom generation. Features include those concerned with universal design, sustainable design, and "cool" (elegant) design.

Available at: <http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aiab094871.pdf>

Visitable Housing: Cost Estimate Summary

Authors: Progressive Accessibility Re-Form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2006)

Description: This report describes the results of a case study on costs of building three Visitable houses in Winnipeg, Manitoba. The article presents details about the costs associated with building Visitable homes and example designs and strategies.

Available at: <http://visitablehousingcanada.com>

Visit-ability: An Approach to Universal Design in Housing

Authors: Steven Truesdale & Edward Steinfeld

Description: It is an excellent source of detailed information on Visitability, providing the reader with a basic understanding of the Visitability, along with good practice examples and cost estimates for Visitable features. The booklet provides diagrams for modifications to retrofit an existing building to become visitable and discusses advocacy strategies for implement visitability. Although the article is American, much information can be applied to Canada.

Available at: <http://idea.ap.buffalo.edu/visitability/Booklet/VisBk%20Ver3-7-03.pdf>

Accessibility

Author: Janice L. Rieger, BID, MA, IDEC

Description: A powerpoint presentation. This resource provides a 20 point list of accessible design features along with attractive photographs of accessible rooms.

Available at:

http://www.chbaalberta.ca/uploads/files/Technical%20Issues%20Info/Accessibility_New_Home_Construction.pdf

Universal Housing Design “It just makes good sense.”

Author: Margaret Ward (2005)

Description: At the 2005 National Housing Conference in Perth Australia, Margaret Ward presented a paper, Universal Housing Design “*It just makes good sense.*” With this paper, Ward reported on the Australian Network for Universal Housing Design (ANUHD)'s 2002 survey on public perspectives on accessibility housing in Australia. The paper also contains benefits of Universal Design to government and to the community, and recommendations.

Available at: http://www.nhc.edu.au/downloads/2005/DayTwo/WardM_Paper.pdf.

Canada Global Age-Friendly Cities Project

Author: District of Saanich, British Columbia, Canada

Description: The brochure, a report on the Canada Global Age-Friendly Cities Project, which provides an overview of the project, focuses on the city's on the environmental and social factors that contribute to healthy, active aging in urban settings.

Available at:

<http://www.saanich.ca/parkrec/community/pdf/SaanichWHOAgeFriendlyCitiesReport.pdf>.

AARP's Increasing Home Access: Designing for Visitability

Author: Jordana L. Maisel, Eleanor Smith, and Edward Steinfeld (2008)

Description: This is a detailed report on Visitability initiatives that support aging independently in the home and community. Authors Jordana Maisel and Edward Steinfeld of the Center for Inclusive Design and Environmental Access (IDEA) and Eleanor Smith of Concrete Change discuss the barriers to visitability implementation and opportunities for further acceptance of these design parameters in the construction of new homes.

Available at: http://assets.aarp.org/rqcenter/il/2008_14_access.pdf

Conclusion

Search terms yielded many results. Given the large volume of material found on accessibility and universal design from a global perspective, the scan focuses on Visitability in Canada and the U.S.A.

Although the reports on highly esteemed designers and advocates promoting Visitability are considerable, a similar degree of lived experience is not reflected in the documentation. Since the notion of Visitability is relatively new, many initiatives are still in the planning and experimental stages. At most, persons who have experienced Visitable housing, have not been surveyed for their feedback on their experience, hence the paucity of available information.

Initiatives and projects that are reported on, were at various stages of development and at different degrees of experience. The common thread that ran through each initiative, was that the stakeholders spent much time and energy planning their built communities and their planned built communities. They also went to the effort of ensuring that the right people had a place at the discussion table.

POLICY REVIEW: Visitability and Home Accessibility

Background

This policy scan will highlight the visitable policies and legislation enacted in various jurisdictions. Much of the policies and legislation, particularly in the United States fall under the following categories:

- Builder Mandates Tied to Use of Public Funds
- Builder Mandates, Beyond Public Subsidies
- Builder Incentives
- Consumer Incentives
- Consumer Awareness/Promotion

In European countries, the policies and laws appear to require visitability or visitable-like features, rather than incenting buyers and builders to create these forms of housing. These policies also tend to go beyond the public domain.

Canada

Vancouver, British Columbia

Name of Policy/Legislation: TBD

Adopted: 2013

Features: The City wants all new single-family, townhouse and laneway homes to meet minimum accessibility standards.

Among the changes the city wants to make:

- Widening hallways to 900 millimetres, or 35.4 inches.
- Widening doorways to 800 millimetres, or 31.5 inches.
- Widening stairways to 915 millimetres, or 36 inches, to allow for mechanical lifts.
- Two peep holes in front doors, one at wheelchair height.
- Lever handles on all plumbing fixtures.
- Lever handles on all doors.
- Wheelchair-accessible building controls, such as thermostats
- Require a bathroom on the lowest inhabitable level of a home.
- Wall reinforcements for bathroom grab bars to be added in future.

- Modified bathtub plumbing to allow for future replacement of tubs with easy entry shower stalls.
- Electrical receptacles raised higher on walls.

Mandatory or Voluntary: Mandatory

Manitoba

Name of Policy/Legislation: Winnipeg Visitable Housing Guidelines

Adopted: 2006

Purpose/Goal/Requirements: The goal of these guidelines are to advance the implementation of visitable housing in Manitoba. These guidelines are complemented by draft policy recommendations, design guidelines, educational materials, and implementation strategies tailored to suit the Manitoba marketplace.

Mandatory or Voluntary: Voluntary

Saanich, British Columbia

Name of Policy/Legislation: Amendments to Zoning By-Law

Adopted: November 2003

Purpose/Goal: This Amendment requires that most newly-constructed apartment buildings and seniors' congregate care facilities be built to include Basic Adaptable Housing standards. Building permits issued for apartment buildings with an elevator and common corridor must comply with the new regulations.

Those applying for rezoning, subdivision and development permit applications are also encouraged to incorporate features from the voluntary design guidelines for apartment buildings, townhouses, and single-family homes.

Mandatory or Voluntary: Mandatory/Voluntary

Reference: <http://www.saanich.ca/business/adaptable/adaptable.html>

Additional Information: The guidelines are as follows:

1. Basic Adaptable Housing

The mandatory guidelines for Basic Adaptable Housing features include barrier-free access to all suites and amenity areas, wider doorways, manoeuvring room at suite entries and corridors, access to a main-floor bathroom, reinforcement of bathroom walls for future installation of grab bars, and accessible door handles, switches, and outlets.

Basic Adaptable Housing is required for newly-constructed residential buildings serviced by an elevator containing apartment or congregate housing uses.

2. Enhanced Adaptable Housing

The voluntary Enhanced Adaptable Housing Design Guidelines apply to apartment buildings. They provide a higher level of accessible and adaptable features than Basic Adaptable and are appropriate, for example, for seniors housing. Those applying for rezoning and development permit applications for apartment buildings are encouraged to incorporate as many of these features as possible.

3. Single Family and Townhouse Adaptable Housing

Accessibility and adaptability are also important for ground-oriented housing. The intent is to provide the flexibility to enable an occupant to live on the ground floor if necessary, and to improve general accessibility into and throughout the dwelling unit.

A no-step entry can usually be incorporated without a ramp by grading the walkway to the front door. Builders undertaking subdivisions and construction projects are encouraged to incorporate the voluntary Single Family and Townhouse Adaptable Housing Design Guidelines into their developments.

The United States

State of Florida

Name of Policy/Legislation: Florida Bathroom Law

Adopted: 1989

Features: This law only requires one feature. The habitable-grade level bathrooms of single-family dwellings, duplexes, triplexes, condominiums, and town homes must have a 29" clear opening. Oversight is provided by local building departments, in connection with their other enforcement responsibilities.

Mandatory or Voluntary: Mandatory

Jurisdiction: Atlanta

Name of Policy/Legislation: Atlanta Visitability Ordinance

Adopted: 1992

Requirements: mandates all builders of new single-family dwellings, duplexes or triplexes, who receive any financial benefit from or through the city, must meet several basic access requirements, including at least one zero-step entrance and adequate interior door widths.

Mandatory or Voluntary: Mandatory

Pima County (Arizona)

Name of Policy/Legislation: Pima County Inclusive Home Design Ordinance

Adopted: 2002

Purpose/Goal: Requires Vistable features

Mandatory or Voluntary: Mandatory

Additional information: In 2003, the Southern Arizona Home Builders Association sued Pima County over the legality of the Visitability Ordinance. In a unanimous decision, the Arizona Court put to rest efforts by Tucson builders to void Pima County's law requiring minimal access in newly constructed single-family homes. By 2008, Tucson, AZ had built 15,000 Visit-able homes.

Reference: <http://cms3.tucsonaz.gov/files/dsd/InclusiveHomeDesignOrdinance.pdf>

Bolingbrook, Illinois

Name of Policy/Legislation: Visitability Code

Adopted: 2003

Requirements: Applies to all new single detached dwelling unit. Zero-step entry. 36 inches minimum for interior doors and 42 inch wide corridors. Half bath on main floor-- the city is rewriting its building code to require that 10 percent of single-family homes or townhouses in a planned development be visitable and 10 percent be adaptable. There is also 32 inch door clearance on the second floor.

Mandatory or Voluntary: Bolingbrook initially approved a voluntary Visitability ordinance that was unsuccessful among homebuilders. In order to make homebuilders comply, Bolingbrook enforced an ordinance.

Reference: http://www.bolingbrook.com/info/pdf/VisitabltlyCde1_09_09.pdf

Freehold Borough, NJ

Adopted: 1997

Requirements: Waives construction permit fees for the addition or construction of accessibility features. The ordinance does not explicitly define what qualifies as accessibility features, but the city has shown a willingness to waive fees for commonly recognized features such as ramps. To date, however, the fee waivers have only been applied to rehabilitation of existing homes. The applicability of the ordinance to accessibility features offered in new homes has not been tested because Freehold Borough has very little new construction activity.

Mandatory or Voluntary: Voluntary/Incentive

Austin, TX

Name of Policy/Legislation: N/A

Adopted: 1998

Requirements: Applies to new single family homes, duplexes, triplexes built with public funds. Requires at least one no-step entrance on accessible route; minimum opening 32 inches, All interior doors on first floor must be minimum 30 inches opening and lever handles. 36 inch wide level route provided through main floor of unit.

Mandatory or Voluntary: Mandatory

Irvine, CA

Name of Policy/Legislation: Universal Design Program

Adopted: 1999

Requirements: Applies to new single family homes. Home builders can offer any combination of 33 features to prospective home buyers.

Mandatory or Voluntary: Voluntary

Urbana, IL

Adopted: 2000

Requirements: Applies to new single family dwellings, duplexes and triplexes built with public funds. Requires at least one no-step entrance on accessible route; minimum opening 32 inches.

Mandatory or Voluntary: Mandatory

Visalia, CA

Adopted: 2001

Requirements: Applies to new single family homes. Zero-step entry, usually through the garage. A maximum of 1 inch threshold at this entrance.

Mandatory or Voluntary: Voluntary/Certificate Program

San Antonio, TX

Adopted: 2002

Requirements: Applies to new single family homes, duplexes, triplexes built with public funds. Requires zero-step entry, 32 inch minimum doors.

Mandatory or Voluntary: Mandatory

Onondaga County, NY

Adopted: 2002

Requirements: Applies on a voluntary basis to new single family homes and duplexes built with public funds. Design recommendations include zero-step entry, 32 inch minimum doorways on first floor. Maneuvering clearance on 1st floor bathrooms and kitchen.

Mandatory or Voluntary: Voluntary

Southampton, NY

Adopted: 2002

Requirements: Applies to new one and two family detached housing

Mandatory or Voluntary: Voluntary/Incentive Based. Requires one zero-step entry. 32 inch clearance on first-floor doors. 32 inch wide hallways. 1/2 bath on first floor that is wheelchair maneuverable. A \$300 credit is offered for building larger homes that have more expensive permit fees. If builder or homeowner include home modifications to improve accessibility, building permits are fast-tracked.

Naperville, IL

Adopted: 2002

Requirements: Applies to all new single family homes. Requires wider first floor interior doors.

Mandatory or Voluntary: Mandatory

Long Beach, CA

Adopted: 2002

Requirements: Applies to all single-family or duplex dwelling units built with public funds. At least one no-step entrance on accessible route, and 32 inch minimum for interior doors, and corridors shall be at least 36 inches wide. Bathroom door opening shall provide a minimum of 32 inches nominal clear space.

Mandatory or Voluntary: Mandatory

Iowa City, Iowa

Requirements: 2002

Purpose/Goal: Applies to all dwelling units built with public funds. Requires Visitable features

Mandatory or Voluntary: Mandatory

Escanaba, MI

Name of Policy/Legislation: The Visitability Ordinance, No. 1024

Adopted: 2003

Requirements: \$150 rebate from the city to property owners who incorporate these features after a compliance inspection.

Mandatory or Voluntary: Voluntary/Consumer Incentive

Chicago, IL

Adopted: 2003

Purpose/Goal: 20 percent single family homes and townhomes in planned developments must be "adaptable" or "visitable". Visitable Homes: stair-free entrance, wide doors on first floor, usable bathroom and one room that can be used as bedroom. Adaptable Homes have a stair-free entrance, usable kitchens, bathrooms and wide door on all floors and a shaft or staircase in which a buyer can install a wheelchair lift.

Mandatory or Voluntary: Mandatory

Houston, TX

Adopted: 2003

Requirements: Applies to affordable housing.

Mandatory or Voluntary: Voluntary - incentives to developers. ORDINANCE 2004-0024: appropriating \$200,000.00 out of Low Income Housing Fund 162 and adopting Guidelines to establish a Voluntary Visitability Program to provide incentives to developers of Affordable Housing to Implement the Design Specifications of Ordinance No. 2003-1239 (\$400/per home for affordable housing developers who voluntarily make their units wheelchair accessible)

Pittsburgh, PA

Name of Policy/Legislation: Pittsburgh Visitability Ordinance

Adopted: 2004

Requirements: Newly constructed or substantially renovated single family dwellings, duplexes, triplexes, town houses and row houses. Any structure hit with a property tax increase because of disabled-related building improvements will receive up to a \$2500 tax credit over five years. The credit is only on city property taxes.

Mandatory or Voluntary: Voluntary – Tax incentive

St. Petersburg

Requirements: Applies to all new one to three unit homes built with public funds.

Adopted: 2004

Requirements: At least one no-step entrance on an accessible route. (The inclusion of a ramp shall not be required where grading is impractical or when a ramp is not acceptable to the applicant seeking financial assistance from the City). At least one no-step entrance on an accessible route. (The inclusion of a ramp shall not be required where grading is impractical or when a ramp is not acceptable to the applicant seeking financial assistance from the City).

Mandatory or Voluntary: Mandatory

Toledo, OH

Adopted: 2005

Requirements: Applies to all new one to three unit homes, subsidized (any government funds) and built within the City of Toledo. Provide at least one no step entrance. The required no step entrance shall be accessed via a visitable route. All doors and openings shall have a minimum net clear width of 32 inches. All hallways and corridors on the main floor shall be at least 36 inches in width.

Mandatory or Voluntary: Mandatory

Auburn, NY

Adopted: 2005

Requirements: Applies to single-family homes, duplexes and triplexes which are constructed with public funds. Applicable dwelling units shall be designed and constructed to American National Standards Institute (ANSI) standards

Mandatory or Voluntary: Mandatory

Scranton, PA

Adopted: 2005

Requirements: Applies to all new one to three unit homes built with public funds.

Mandatory or Voluntary: Mandatory

Arvada, CO

Adopted: 2005

Requirements: 15% of all new dwelling units must be visitable or visitable adaptable; an additional 15% must include interior visitable features. Visitable dwelling units shall be provided with a step-free or accessible entrance on an accessible route that complies with ANSI standards.

Mandatory or Voluntary: Mandatory

Milwaukee, WI

Adopted: 2006

Requirements: Applies to new/substantially rehabilitated multi-family subsidized housing. Requires zero-step entry, interior accessible route 32 inches wide, and usable first floor bathroom.

Mandatory or Voluntary: Mandatory

Montgomery County, Maryland

Name of Policy/Legislation: Design for Life Program

Adopted: 2007

Requirements: Applies to all new home building and renovation in single family attached and detached homes. At least one entrance shall have a no step entry at the front door, back door, side door (any door), deck or through the garage on an accessible route. The accessible route shall extend from a vehicular drop off, or parking to a no step building entrance. Accessible routes shall consist of one or more of the following components: • Walking surfaces with a slope not steeper than 1:20. • Doorways, ramps, curb ramps, elevators, and wheelchair (platform) lifts. • Floor or ground surfaces shall be stable, firm, and slip resistant. Dwelling units with a building entrance on an accessible route shall be designed in such a manner that all the doorways designed to allow passage into and within all areas required to be accessible have a clear opening width of at least 32 inches when the door is open 90 degrees, measured between the face of the door and the stop. Openings more than 24 inches in depth are not considered doorways. Dwelling units with a building entrance on an accessible route shall have a circulation path that is at least 36-inches wide. The circulation paths shall connect the accessible entrance to at least one powder room or bathroom, and one other room that can accommodate visitation.

Mandatory or Voluntary: Voluntary

Reference: <http://www.montgomerycountymd.gov/HHS-Program/ADS/DFLM/DesignForLifeMontgomery.html>

Rockford, IL

Adopted: 2007

Requirements: Applies to all new one to three unit homes built with public funds. These homes are to be built with Visitable features.

Mandatory or Voluntary: Mandatory

Davis, CA

Adopted: 2007

Requirements: 100 percent of all new market rate and middle income single-family residential units shall be developed with visitability and all new single-family affordable residential units shall be developed with first floor accessibility (includes bedroom).

Mandatory or Voluntary: Voluntary (Facilitate inclusion of accessibility and visitability features to the greatest extent possible, including use of incentives)

Lafayette, CO

Adopted: 2007

Requirements: Aims for 25% of homes with visitable features. The 25% requirement would apply regardless of whether the development consisted of single-family detached or multi-family units. Mixed-use developments that include a vertical mix of uses and have greater than 75% of the units located above the ground floor will be exempt from the requirements. However, ground floor accessible units, up to a maximum of 25% of the total units within the development, will be required to comply. City Council could accept a cash in-lieu payment by a developer if requested prior to the preliminary plan review. Any cash in-lieu payments would be set aside to assist existing, qualified (as determined by Council) homeowners in retrofitting their homes. The Commission may recommend a waiver of the requirements, specifically the zero-step entrance, subject to excessive slope or other site conditions, or existing property restrictions such as excessive easements.

Mandatory or Voluntary: Mandatory

Dublin City, CA

Name of Policy/Legislation: Universal Design Ordinance

Adopted: 2007

Requirements: The universal design ordinance requires developers building more than 20 houses in a given project to install Universal Design features. The ordinance requires the developer to offer a list of optional features to make homes more accessible, such as a zero-step entrance. Items such as this will not be installed unless specifically requested by the buyer.

Mandatory or Voluntary: Mandatory

Birmingham, AL

Adopted: 2007

Purpose/Goal: All new single family homes built with public funds must include Visitable features.

Mandatory or Voluntary: Mandatory

Connecticut

Name of Policy/Legislation: Public Act 10-56 “An Act Concerning Visitable Housing”

Adopted: 2010

Purpose/Goal: The Act spells out what the visitable features are and describes Connecticut’s voluntary model of Visitability

Mandatory or Voluntary: Voluntary

Indiana

Name of Policy/Legislation: INDIANA VISITABILITY RULE FOR ONE AND TWO FAMILY DWELLINGS AND TOWNHOUSES

Adopted: 2005

Purpose/Goal: Spells out Visitability guidelines for homes built with Visitable features

Mandatory or Voluntary: Voluntary

Reference: http://www.in.gov/legislative/iac/iac_title?iact=675 (See Article 27)

Minnesota

Adopted: 2001

Purpose/Goal: The 2001 Minnesota Legislature imposed a visitability requirement on certain new construction financed by Minnesota Housing Finance Agency (Minnesota Housing).

Mandatory or Voluntary: Mandatory

Vermont

Adopted: 2000

Purpose/Goal: The law requires five specific visitable features in 'spec' homes, or those homes built by a developer prior to obtaining a purchaser.

These features include: 1) one first-floor exterior door at least 36 inches wide; 2) 34-in wide first-floor interior doors with thresholds that are ramped or beveled; 3) 36-inch wide level interior hallways; 4) environmental controls and outlets located in accessible locations; and 5) reinforced bathroom walls. The department responsible for enforcement, as well as how many 'spec' homes have been built, is unknown.

Vermont's law also includes a consumer education component. The Department of Aging and Disabilities Assistive Technology Division is in charge of educating home buyers about the visitable homes in an effort to promote public awareness. The Vermont legislature gave the Department authority to build a demonstration house; however, no funds were appropriated for this project.

Mandatory or Voluntary: Mandatory

International

United Kingdom

Adopted: 1993

Purpose/Goal: In the United Kingdom, the Joseph Rowntree Foundation developed the Lifetime Homes program in 1993 that contained 16 design features that ensure a new house or flat will meet the needs of most households. The Foundation's efforts also led to the revision of Part M of the British Building Regulations. This section of the building code requires homebuilders to construct new housing to standards that permit people with disabilities, particularly wheelchair users and those with mobility or ambulant impairments, to visit a house and have access to at least a common space and toilet on the main floor. Wales, Scotland, and Northern Ireland have developed and adopted similar regulations.

Mandatory or Voluntary: Mandatory

Sweden

Adopted: 1994

Purpose/Goal: Accessibility legislation is integrated into the Swedish National Building Code. The main rule regarding accessibility states that "Buildings containing housing, work space and facilities for public use, must be designed and constructed in such a way that they are accessible and usable by persons with limitations of mobility or orientation capabilities" (BVF 1994, §12).

Sweden is also leading the way towards full community-wide accessibility. In 2000, the country adopted a "National Action Plan for Handicap Policy."

Mandatory or Voluntary: Mandatory