

Usable by all



Successfully integrating the principles of universal or inclusive design will help our communities work for all stages of the lifecycle.

By Susan Ruptash

We are all temporarily abled. As we age, our strength, reach and flexibility diminish. Our visual acuity changes, we require higher lighting levels and become more sensitive to glare. Our hearing fades. Our memory is not as acute as it once was. Therefore, it makes good common sense to design our cities and our buildings using the principles of universal design – loosely defined as *the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design* — so that the built environment does not impede us, at any age, as we move about our day. It's also good business sense to integrate these principles at the very beginning of the architectural and planning process, which is far more cost effective than undertaking disruptive and expensive renovations at a later date.

Canadians are living longer than ever, and the majority of the population is made up of baby-boomers born between the years 1946 and 1964. People from this generation are increasingly choosing to stay in their own houses, apartments and condos instead of moving into retirement or long-term care facilities. Where possible, they want to stay in the communities they call home, rather than move out to a facility in the suburbs.

When choosing a home, boomers are looking for adaptable, accessible, human-centred design that is great now with flexibility for later. During the conceptual design phases of these homes, project designers can lay the foundation for an inclusive environment. Elements such as wider hallways to allow for the eventual need for walkers and wheelchairs; levers instead of knobs so that arthritic hands will still be able to open doors; windows that are large with low sills so that wheelchair users can admire the views outside; the use of plywood behind bathroom tiles so that grab

bars can be installed easily if and when required; reachable thermostats with a readable font; floor finishes that are flat and level and non-slip so you can walk, roll and shuffle on them — these design fundamentals can be incorporated from the start of a project without any hint of an institutional look.

Many people still believe that this is special-interest design, for only a tiny percentage of the population, and that it's too expensive. That is simply not true. Great universal design should be expanded to consider the needs of a great range of people. Quadrangle Architects has designed several residences for older people where universal design was incorporated from the start of the design process. St. Lawrence Neighbourhood Seniors Non-Profit Housing, for example, forms part of a residential block near Church Street and The Esplanade in downtown Toronto. In this particular case, the needs of the elderly were a primary design consideration to ensure that residents could age in place while at the same time creating a building and surroundings that fit nicely in the busy urban fabric of the St. Lawrence Market neighbourhood. Suites were tailored for the needs of those residents with limited mobility and disabilities. A front porch was created by elevating the street entrance above the sidewalk, allowing a transitional area where residents can enjoy the street life while remaining safely separated from the vehicular and pedestrian traffic at this very busy intersection.

Another life-lease seniors' community project, Woodside Mews in Oakville, Ont., won an Urban Design Award of Distinction for demonstrating how creativity in design can contribute to the success of a project both for the residents and for the nearby neighbourhood. Surrounded by a library, a school, semi-detached seniors' rental homes and single-family houses, input from the local residents led to a number of design directives that helped shape the project, and in return the introduction of the mews helped create a human scale on this dense property. The semi-detached units were designed so that each pair of units mirrored

Above: An elevated front porch for St. Lawrence Neighbourhood Seniors Non-Profit Housing in Toronto gives elderly residents a transitional space to safely be part of the streetscape.



At Woodside Mews, a life-lease community for the elderly in Oakville, Ont., houses have design features such as at-grade entries that allow seniors to age in place.

the size and scale of the nearby homes. Although a single point serving an internal street system supplies access to the project, units along public streets were turned to address the street.

Driveways and garages were located at the rear of the units to be dedicated to the residents. Front doors, porches, individual garden areas and a system of landscaped walkways create the feeling of a much larger site and offer a welcome respite from the hard surfaces of the driveways. Equally important was that the interior and exterior design supports aging in place.

Not just a house, but a city, too

The urban fabric of our communities must also address the principles of universal design. This includes considering age-friendly elements such as safe curb-cuts that don't fill up with snow and ice in the winter; visual and audible traffic signals and alternate "fast and slow" pedestrian crossing signals that will give older and disabled persons enough time to safely cross the road. Good way-finding and signage can make a critical difference in the ability for someone to safely get where they're going. Other initiatives for age-friendly communities include more strategically placed benches, slopes and ramps instead of stairs where possible, more thoughtful placement of trash and recycling receptacles that allow freer pedestrian movement, and more and better access to public transit.

The past decade has seen a huge intensification in the number of people living in the downtown core which leads to an increased volume of pedestrians, scooters, baby strollers and bicycles. In dealing with that for older persons, we're dealing with that for everyone. It's yet another example of an integrated way of thinking about design. We can do better. European cities have led the charge in renovating and planning entire towns and cities with universal access as the catalyst. 24 countries belong to the European Concept for Accessibility, an umbrella organization founded in 2003 whose philosophy for accessibility, according to its website, is "the recognition, acceptance and fostering — at all levels in society — of the rights of all human beings, including people with activity limitations. Accessibility for all is an essential attribute of a 'person-centred' sustainable built environment."

Various cities are launching comparable initiatives that focus on including barrier-free design at the outset of planning as a matter of course, for example Berlin with Barrier-Free Berlin,

and Dublin with Access Matters, both of which are examples of what can be achieved when city government, businesses and citizens work together to make their city better. "Cities need to be conscious of the importance of ensuring access for citizens of all ages, abilities and circumstances. Accessibility is important from a social justice and an economic competitive viewpoint. Accessible cities are more open to participation by citizens and visitors in the social, cultural, economic and commercial life of the city," said Dublin mayor Eibhlin Byrne at the recent "Access and the City - universally designed communications for ease of visiting and effective living in cities and towns" conference.

Although not quite at the European level, Canada is beginning to embrace universal design as a matter of course from the bottom up — a growing awareness of the basic issues and the obviousness of the course we must take from the top down — through increasing legislation.

The Accessibility for Ontarians with Disabilities Act (AODA), passed in June 2005, specifies that all public and private sector organizations in Ontario must be barrier-free by 2025. In addition, the existing Human Rights Code has very broad language to prevent discrimination on the basis of disability. Regardless of other existing specific standards and building codes, the Human Rights Code protects the right for people with disabilities to access workplaces, transit, shops and restaurants and therefore places an obligation on building owners to make their facilities accessible.

Most provincial building codes include minimal requirements for barrier-free design. Every cycle of code revision (usually every five years) is likely to result in increased requirements. Designing now to a high level of accessibility, rather than aiming for the lowest common denominator of the minimum requirements, will help future-proof the building, and shelter the building owner from high costs of renovation or legal actions later.

Further new legislation for barrier-free and universal design is on the horizon. The percentage of new buildings we create annually is tiny relative to the stock of existing buildings we have, so any legislation will need to address retroactivity in order to be effective. Retroactive fixes to ensure universal access cost the owner far more than eliminating them at the start, which is why it is good common sense to incorporate universal design at the very start of the process and not be saddled with cumbersome costs afterwards.

Businesses today face considerable challenges in attracting and retaining customers and qualified staff, and they cannot afford to ignore the buying power and expertise of our older adults and people with disabilities. It is estimated that currently one in six Canadians has a disability, and that ratio will continue to climb as our baby-boomers age.

We need to do more now to make our cities and our buildings accessible to all. We need to stop creating new barriers by integrating the principles of universal design in all new work. We need to address our current stock, public and private, large and small. We need to change our attitudes: this is not specialized design, it is intelligent design; this is not a special interest group, this is us. We all deserve the dignity and the choice and the independence that will come with universal design, regardless of our abilities, our disabilities or our age. **B**

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