# How to create Age-Friendly Communities through Setting **New Parameters for Landscape Environmental Design**

### **OVERVIEW**

**Abstract.** Explore new methods of older adults' engagement within city Legend t 12 planning and landscape design. A combination of theoretical and empirical Female 10 research methods were used to bridge disciplinary practices and opinions. Male **Objective. 1.** Identify deficiencies and successes in the current practice of inclusive landscape architecture and design with a focus on the physical and psychological needs of the aging population within Canadian demographics. **2.** Explore the contributing catalysts of sustainability, environmental awareness 75-84 85-94 65-74 and ecological efforts. **3.** Connect and redefine the investigated current concerns Age Group within the older adult demographics compared to industry research. **Methodology.** A comprehensive review of literature was investigated concerning aging characteristics and landscape development to provide base for the two types of empirical research applied. <u>Survey.</u> The end-user survey of 30 participants of ages 55+ was conducted to specify their present day physical and psychological requirements, concerns of comfort and accessibility levels, and their lifestyle needs or preferences for inclusive design. This reflects responses of current and future demands. <u>Interviews</u>. The interviews were conducted with professionals in several disciplines, such as: ecology, interior design, architecture, lifestyle-care consulting, aging organizational members, and care facility end-users to investigate successes and deficiencies within environmental sustainability, landscape practices, and aging. **NOTE:** Female results are represented in orange and male results are in green. Responses are ranked from greatest to least. Results were averaged to count for uneven gender participation. **Bibliography.** References available from presenter.

#### LANDSCAPE CORRELATION

Participants rated the importance of the criteria listed below to evaluate the current needs

#### Perception

Considers the outdoors as "stress free" Feel happy when outdoors Considers the outdoors as an "escape" or "retreat" Use the outdoors to maintain physical activity and to "keep fit" The outdoors is refreshing and exciting Want to participate in the planting, maintenance or gardening when outdoors Outdoor spaces are visited to remember certain memories Ability to remember what plants were seen after visiting an outdoors place More likely for outdoor visit if same age group were present The outdoors is tiresome and draining Physical capability restricts access to plants when outdoors Feels fear when outdoors

6	5%		35%
6	5%		35%
63	8%		37%
71%	6	29%	6
92%	6	8%	•
98%	2%		
87%	-13%		
<mark>85%</mark>	- 15%		
<mark>98%</mark>	—2%		
<mark>83</mark> %	-17%		
<mark>95</mark> %	— 5%		

17%

55%

45%

Preferences

- Davlight determines outdoor visit To sit depends on shade Enjoys outdoors walking with someone Lots of greenery makes one feel better Stops to smell or touch plants Frequently sits in outdoor space Enjoys outdoors to walk alone Enjoys the outdoors for privacy Enjoys the outdoors based on the amount of trees Enjoys the outdoors for the quietness
  - Enjoys tall grasses
  - Enjoys small shrubs
- Outdoor maintenance affects enjoyment Enjoys the outdoors based on the amount of flowers Enjoys background sound/ music while outdoors

77%		23%	
61%		39%	
61	.%	39%	
	62%		
60%	40%	6	
53%	47%		
65%	35%		
91%	9%		
78% 22	%		
<mark>48% 52</mark> %	%		
<mark>49% 5</mark> 1	1%		
65% <mark>3</mark>	<mark>5%</mark>		
43% 57%			

48	3%	
639		37%
65%	6	35%
819		19%
82%	18%	
87%	13%	
80%	20%	
88%	12%	
77%	23%	
	22%	
68% 32%	5	
79% 21%		
76% 24%		
84% 16% 74% 26%		
81%		
<mark>76%</mark> 24%		
<mark>59%</mark> 41%		

Design Criteria				
Washroom Facilities				
Shade by Tree				
Seating—(bench or chair)				
Shade by Canopy				
Odors + Fragrances from Plants				
Guided Directional Markings on Path				
Wide Paths				
Instructional, Way-finding Signs				
Social Areas Throughout				
Graphic/ Picture Illustration Signs				
Feel of Wind				
Pavement Paths				
Privacy Areas				
Concrete Paths				
"Fun Fact" Educational Signs				
Stone/ Gravel Paths				
Narrow Paths				
Fences, Borders or Walls				

### LANDSCAPE REFLECTIONS

Participants rated the important areas of improvement within the criteria listed below to the associated image.

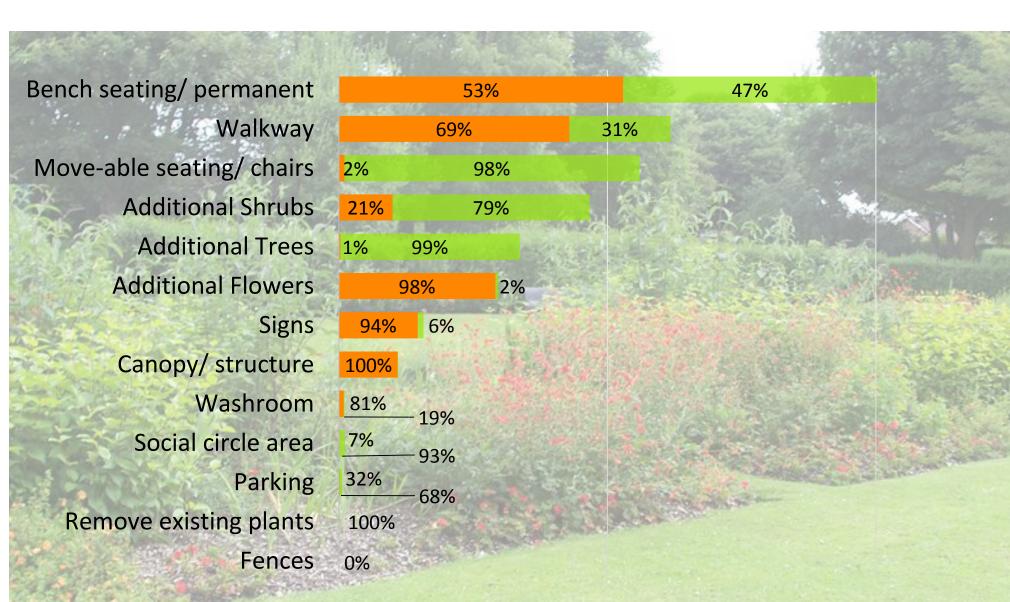
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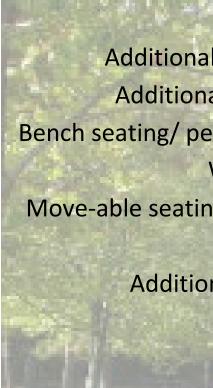
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62%









Additiona

Addition

Additio

Social ci

Canopy/

**Remove** existi

**Additional Flowers** Additional Trees Bench Seating/ Permanent Parking **Additional Shrubs** Walkway Movable Seating/ Chairs 57% Canopy/ Structure 1% Signs 69% Washroom 9% Social Circle Area 85% Remove Existing Plants 0%

			-	S. S. Some
Flowers		65	5%	35%
al Shrubs	19%		81%	State of the second
rmanent	<mark>56%</mark>	44%		10.2
Walkway	78%	22%		
g/ chairs	<mark>86</mark> %	- 14%	A DA HAND	
Parking	<mark>2</mark> %	- 98%		
nal Trees	100%			
Fences	100%			
Signs	86%	-14%		
ashroom	57%	- 43%		
rcle area	91%	— 9%		
structure	47%	- 53%		
ng plants	0%	The second		

#### **Respondent Barriers**

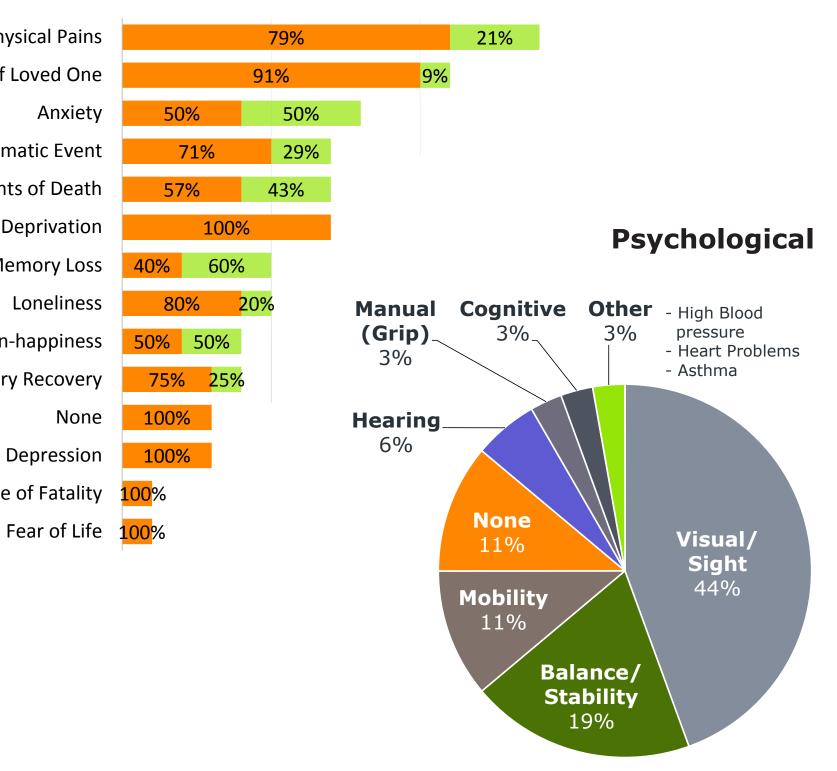
#### Physical

- Severe Physical Pains Loss of Loved One Anxietv **Traumatic Event** Thoughts of Death
- Sleep Deprivation Memory Loss
- Loneliness Un-happiness
- Difficult Injury Recovery
  - Depression
  - Chance of Fatality 100%

Participants reflected on the images to the left to provide cognitive insight to how landscapes are observed by older adults. Adjectives were selected based on emotional and sensory characteristics that were associated with the image.

Only male participants made additional comments on each image and they **all** stated "no change" for improvement.



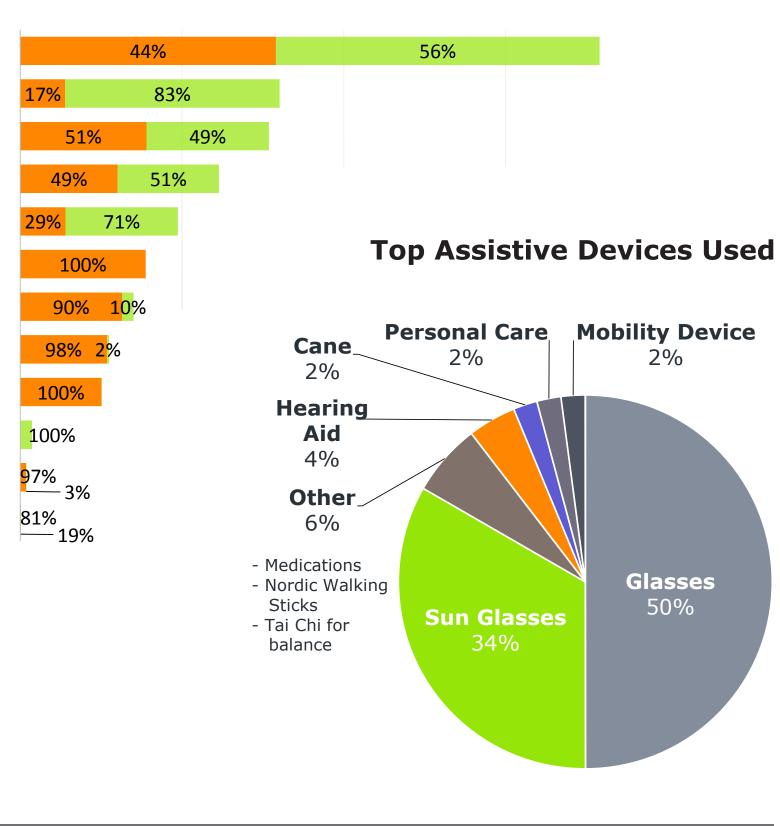


#### **Characteristics of Respondents**

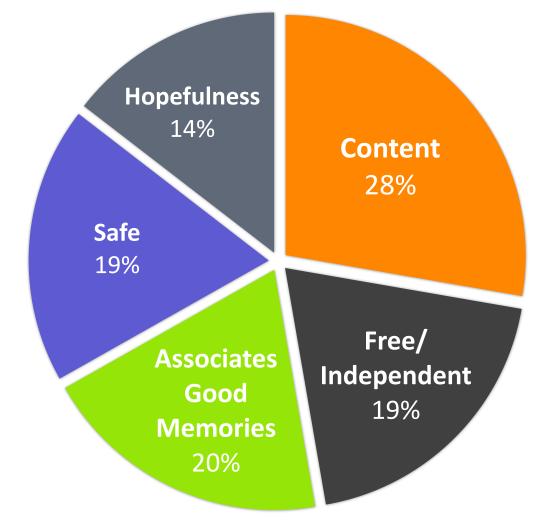
Social

#### Personality

**Team-Oriented** Reserved Deep respect for past Intuitive (relates to...) Verbal Communication Tradition over Change Change over Tradition Logical (rule-oriented) 100% Written Communication 97% Present/ Future—oriented







### INTERVIEWS

The results of the interviews are as follows: • There is a large gap in knowledge within the application and functionality of sustainable Landscape Design from a designer and ecological perspective

• Current Landscape Design does not meet the demands and desires of the present older adult demographic or administer appropriate strategies for future growth.

• Design should encourage independence and enduser choice while promoting safety. • Sense of purpose and variety of options for

differing abilities are critical.

• Inclusive Design principles within built landscapes are established as "very important" from all practices, which establishes the understanding for cross-disciplinary solutions • Further empirical research of older adults is critical to build relevant adaptations within future city landscapes and age-friendly communities.

The analysis concluded that the aging population's requirements differentiate from the professional design solutions – particularity considering the psychological needs – within landscape design. Social scientists, researchers, and older adults are concerned about the disruption of cultural and psychological factors that connect people to locality, which reflects the ecological standpoint of "leave it the way it is."

#### Integral Psychological and Physical Needs

- 1. Universal and accessible landscapes promote inclusivity for people of all abilities.
- good memories. It installs independence and essential factor for healthy older adult living. gives hope, and acts as a positive retreat.
- areas are critical requirements.
- user and environmental sustainability.

#### **Recommendations for Improvement**

- assistance supports this development.
- accurate projected studies.

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#### CONCLUSIONS

active aging in regards to improvement, growth, and

2. The cognitive response data to landscapes prove that they administer feelings of contentment and freedom, which provides dignity to people – an Landscapes add a sense of security for individuals,

3. The aging population use the outdoor environment to obtain and maintain physical activity (fitness) and as a therapeutic atmosphere for stress-relief. Daylight is required, which determines their visit and social

4. The promotion of ecological awareness and landscapes to remain in the original state support

1. The most significant attributes to implement for outdoor landscapes are supportive spaces for the user. These are washroom facilities, walkways with proper circulation, wide path space, and designated areas for rest with bench seating. Wayfinding in signage and directional communication are critical to allow for user choices and confidence. Shade and parking are held important for improved experience. 2. Visual, aroma and tactile stimulation of additional flowers and shrubs supply the valuable sensory experience the aging population demand. The data of visual impairment and dependence of visual 3. Additional evidence-based design and quantitative

research is vital to update standards and provide for