

## Home Entrance Adaptations for Increased Usability

Presented by:



November 29, 2011

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### Presentation Overview

- Accessible entrance solutions
- Relevant codes and design standards
- Funding sources

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### Getting Started: Accessible Entrance Considerations

- The Client

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**Getting Started:  
Accessible Entrance Considerations**

- Mobility Equipment

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**Getting Started:  
Accessible Entrance Considerations**

- Home Characteristics

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**Ramps**



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## Threshold Ramp

- Threshold at doorway should not be more than 0.5" high<sup>1</sup>
- Threshold ramps generally are 12' – 24" long and should not be used for any more than a 2" rise

1. Alberta Building Code, 2006

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## Ramps



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## Ramps

### Pros

- Relatively simple and low cost solution if right site and slope
- Low tech solution

### Cons

- Site often does not have enough room for safe length of ramp
- Slippery in inclement weather
- Have to have someone able to shovel entire length in winter
- Difficult for some clients to use
- Unappealing aesthetics
- Have to have accessible route to ramp
- Often have to also build new alternate access with stairs

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## Ramp Design Guidelines

- Slope of at least 1:12<sup>1</sup>, preferably 1:15 or 1:20
- Consider grading of the site as this also affects the length of the ramp
- Need at least 5' x 5'<sup>1</sup> landings at top and bottom of ramp
- Require intermediate landings where ramp makes a 90° or 180° turn
- After 30' a level area at least 4' x width of the ramp<sup>1</sup>
- Minimum clear width 34"<sup>1</sup>; 36"<sup>2</sup> and wider is better

1. Alberta Building Code, 2006  
2. CSA-B651-04

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- Handrails on both sides of the ramp
  - 34" to 38 " high
  - clearance to obstacles behind of 2-2.5"
  - at minimum one rail should extend at least 12" beyond top and bottom of ramp<sup>1</sup>
- Edge protection<sup>2</sup>
  - Curb of 3" minimum
- Low slip surface
  - Grit tape or grit paint

1. Alberta Building Code, 2006  
2. CSA-B651-04

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## Designing a Ramp

- Measure the rise
- Using slope of at least 1:12 estimate the ramp length required
- Add length of required landings
- **Total Length = Landings + Run**
- Is there enough space for total width and length of ramp?

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## Porch Lift



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## Porch Lift

### Pros

- Depending on where placed can be relatively discrete (e.g. garage, back door etc)
- Easy to use
- Smaller area to keep cleared of snow
- Can be removed and moved to a different residence
- Can be purchased used ( and sold when no longer required)
- Takes up a small amount of space as compared with a ramp

### Cons

- Requires some concrete and possible electrical site prep
- Possible unappealing aesthetics
- Still require site prep of accessible path to the lift
- Electric components - increased maintenance

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## Porch Lift

- Typical weight capacity of approx 550 lbs - can get heavier duty models but more expensive
- Standard lifting height of up to 6' - some models can go higher
- Require landing of at least 5' x 5' - with safety gate
- Require concrete pad of at least 6' x 6'
- Cost starts at around \$5000.00 + any site preparation / construction costs

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## Handrails

- **Handrails**
  - Height should be 34" - 38"<sup>1</sup>
  - At least 12" horizontal extension at the top and bottom of the stairs <sup>1</sup>
    - Extension should return to the floor or wall
  - 2" - 2.5" clearance behind the rail <sup>1</sup>
  - Rail should be round and graspable approx 1" - 2" diameter <sup>1</sup>

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## Accessible Path of Travel

- Exterior Walk should be at least 43" wide and free from obstructions <sup>1</sup>
- Surface should be hard and even
- Landscaping – there should be a clear sightline to the door
- Lighting – motion sensor light if possible

1. Alberta Building Code, 2006

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## Putting it All Together: The Ideal Entrance Solution



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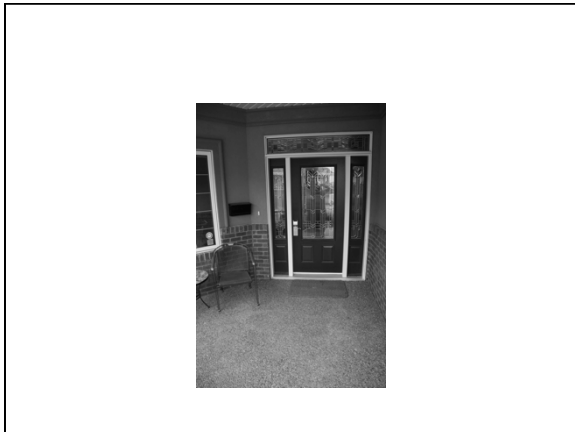
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**Funding for Home Renovations**

**Residential Access Modification Program (RAMP)**

- Grant through Alberta Seniors and Community Supports for up to \$5,000.00 for modifications related to wheelchair accessibility
- Primarily entrances
- Criteria:
  - Applicant owns a wheelchair or is 75 years of age or older
  - Gross household income is below \$36,900(single) or \$46,500 (couple)
  - House value is below \$510,000
- Contact: Dennis Spilak (780) 427-5760

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**Funding for Home Renovations...**

**Residential Rehabilitation Assistance Program (RRAP)**

- Forgivable loan through Canada Mortgage and Housing Corporation (CMHC) for up to \$16,000 for homeowners and \$24,000 for landlords
- Ramps, handrails, chair lifts, height adjustable countertops, etc.
- Criteria:
  - Income below \$36,000
  - House value below \$400,000
- Contact: Jacquie Mercier (403) 268-5406

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## Funding for Home Renovations...

### Home Adaptations for Seniors' Independence (HASI)

- Forgivable loan through CMHC for up to \$3,500
- Handrails, kitchen work and storage areas, lever handles, grab bars, etc.
- Criteria:
  - 65 years of age or older
  - Gross household income is below \$36,000
- Contact: Sharmin Ladha (403) 515-3000

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## Funding for Home Renovations...

- Alberta Easter Seals - equipment only
- President's Choice Children's Charity
- MS Society
- Cerebral Palsy Association (Calgary and Alberta)
- ALS Society
- Veteran Affairs Canada
- Muscular Dystrophy Association
- Disability Tax Credit

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## Key Contacts for RAD Program

- Ailsa McGurk, OT  
403-735-2430 ailsa@ahscalgary.ca
- Ihor Politylo, Technical Advisor  
403-735-2429 ihor@ahscalgary.ca
- Jessica Bidulock, OT, Program Manager  
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403-735-2428 theresa@ahscalgary.ca

[www.ahscalgary.ca](http://www.ahscalgary.ca)

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# Resources

- NATIONAL RESEARCH COUNCIL OF CANADA, 2006. *Alberta Building Code 2006*, vol. 2. Ottawa: National Research Council of Canada.
- CANADIAN STANDARDS ASSOCIATION, 2007. B651-04 . *Accessible Design for the Built Environment*. Mississauga: Canadian Standards Association.
- CITY OF CALGARY, 2009. *Access Design Standards*: City of Calgary. [http://www.calgary.ca/PDA/DBA/Documents/development/access\\_design\\_standards.pdf](http://www.calgary.ca/PDA/DBA/Documents/development/access_design_standards.pdf)
- SAFETY CODES COUNCIL, 2008. *Barrier-Free Design Guide*. Edmonton: Safety Codes Council. [www.safetycodes.ab.ca](http://www.safetycodes.ab.ca)
- *Accessible Housing By Design*, Fact sheets by Canadian Mortgage and Housing Corporation [http://www.cmhc.ca/en/co/co\\_009.cfm](http://www.cmhc.ca/en/co/co_009.cfm)

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