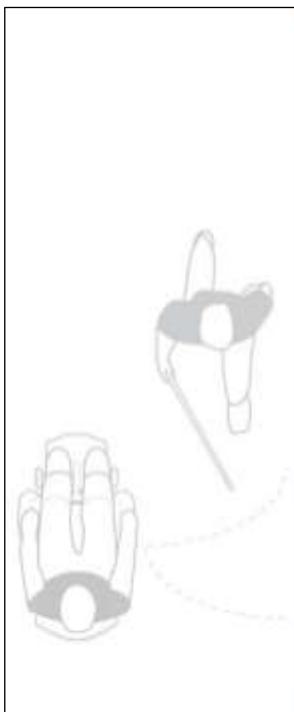


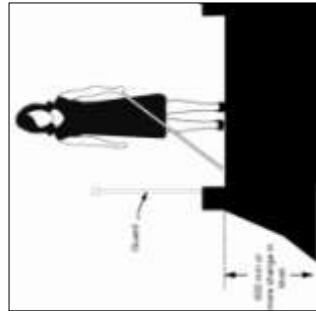
Accessibility Design Guidelines

Development Services Committee Presentation

September 13, 2011



Town of Markham Accessibility Design Guidelines





Accessibility Design Guidelines

Agenda

1.0 Introductions

2.0 Project Background

3.0 Accessibility Design Guidelines

- *Summary of Content*

4.0 Discussion

- *DSC Feedback / Q & A*



Accessibility Design Guidelines

Project Background

- Update to earlier versions of Guidelines ('06/'07)
- Markham has demonstrated leadership in this area very early
- Address potential AODA requirements for design of the Built Environment that may come through
 - Review, integrate existing and establish “Best Practices”
 - local, national and international
- Address departmental needs – improve content to assist with implementation

A rectangular document cover for the "Clearing Our Path" report. The title "Clearing Our Path" is at the top in large white letters, followed by "Final Proposed Accessible Built Environment Standard" in smaller white text. Below the title is a photograph of a modern building interior with a curved yellow floor and a glass ceiling. In the top right corner, there are logos for "Incoq" and "crlb". At the bottom left, it says "April 2010".

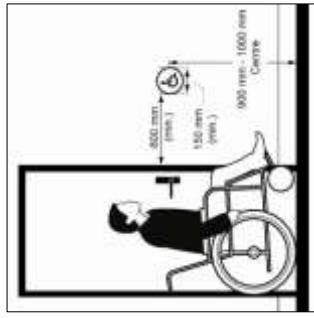
Accessibility Design Guidelines

Project Background

- Overall, update has been ongoing with other Town accessibility initiatives – audits / retrofits

- Improve both technical criteria, as well as **organization of document** - cover broader planning, design, and development processes (**new layout, revised content and graphics**)

- **Consultation:** Technical Advisory Committee, Staff, Accessibility Advisory Committee, Development Services Committee.

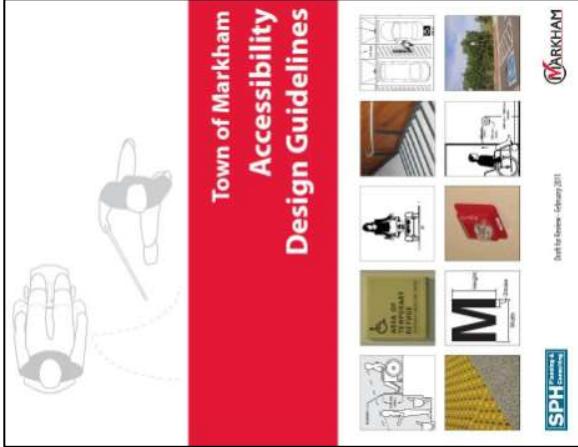




Accessibility Design Guidelines

Summary of Content

- Technical criteria relates to needs of various users: **Key Types of Disabilities**
 - Physical
 - Auditory
 - Visual
 - Intellectual / Learning / Emotional
- **Promoting understanding of cross-disabilities is important and that accessibility issues impact diverse users**
- **Barrier Free / Accessible Design versus Universal Design**
 - wide spectrum of ways to combine application of technical criteria to both new construction and retrofits





Accessibility Design Guidelines

Section 1.0 -Introduction

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3.1.9 Implementation Alternatives

Children with the profiles of cognitive and emotional instability described above, who have been exposed to violence, are more likely to develop the same symptoms as adults in situations of abuse and neglect. This means that the implementation of these interventions will result in a more meaningful level of effectiveness, meeting the principles of contextualism.

1.2 Guideline Organization

¹⁴ See, especially, Amerson, *Op. cit.* 1966, on the following.



These features are further divided into absolute values from those relative to length, size or bulk elements. At the start of each section, the 'Significance' of the differences is determined to start with orientation and, how much variation there is due to the body environment, afterwards on posture.

1.2.1 Tables, Figures and Graphics Throughout these Guidelines, several terms, figures and graphics are provided to assist you and your understanding the application of the accompanying criteria and

Socio-environmental change

sections described as follows.....

- **Regulatory Framework:** AODA, OBC, Planning Actset the context
 - **Application of Guidelines:** Town leased, owned, operated facilities / infrastructure
 - Focus on what Town can control until Pro directions for private sector

THE JOURNAL OF CLIMATE

With 10 years' experience in the field of strategic development, I am now looking to move on to a new challenge. I have been involved in 100+ projects, with a total value of over \$100 million.



Accessibility Design Guidelines

Main Guideline Sections

- **Section 2.0 Common Elements**

- **Section 3.0 Exterior Environments**

- **Section 4.0 Interior Environments**

- **Section 5.0 Systems, Controls and Communications**

- **Section 6.0 Special Facilities and Spaces**

2.2 Ramps

Application
This section applies to ramped transitions in areas of assembly or trade settings or where elevations, where the slope of a ramp off travel surfaces is greater than 1:10 [10].

Reference

- Sec. 3.1 Inclusive and Positive Environments
- Sec. 3.3 Health and Safety
- Sec. 3.7 Positive Working Culture
- Sec. 5.7 Lighting

2.2.1 Design Features

This section applies to ramps with a rise of 120 mm (minimum) or less.

- a. where a ramp has a rise of 120 mm or less, the ramp must have a maximum gradient of 1:10 (Figure 2.2.1.1).
- b. where a ramp has a rise of 120 mm or less, the ramp must have a minimum gradient of 1:16 (Figure 2.2.1.2).

2.2.1.1 Ramping Slope

- a. the maximum gradient of 1:10 (Figure 2.2.1.1).

2.2.1.2 Curb-Slope

- a. where a ramp has a rise of 120 mm or less, the ramp must have a minimum gradient of 1:16 (Figure 2.2.1.2).

Source: Ontario Ministry of Infrastructure

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MARKHAM Accessibility Design Guidelines



4.5 Washrooms

Reference

Sec. 2.3 Ground and Floor Surfaces
Sec. 2.5 Obstructing and Penetrating Objects
Sec. 4.3 Doors and Doorways
Sec. 4.8 Interior Accessible Routes
Sec. 5.1 Controls and Operating Mechanisms
Sec. 5.6 Fire and Life Safety Systems
Sec. 5.7 Lighting
Sec. 5.8 Signage and Wayfinding

Application

This section applies to washroom facilities within a site and facilities including, but not limited to:

- multiple occupancy washrooms;
- universal toilet rooms; and
- change rooms with washroom features.

Best Practice

Universal toilet fixtures allow the greatest flexibility, including longer fixtures to accommodate those who require assistance and may be accompanied by a caregiver or companion, as well as to accommodate larger mobility skills such as bowel movements and transfers.

4.5 Washrooms

Figure 38 Example of Washroom Occupancy Information Layout

Where universal toilet rooms are provided:

- a. Codes in these areas ensure no other washrooms along the corridor accessible route;
- b. meet with the International Symbol of Accessibility;
- c. provide accessible entrance door;
- d. equal width (washroom fixture can be symmetrical or not), in case of emergency locking mechanism there can be asymmetrical entrances;
- e. -mount accessible mounting and locking mechanisms 800 to 1000 mm above floor; and
- f. where door or swing door is used, provide door closer, spring trigger or gravity trigger that closes door automatically;
- g. ensure external dimensions of entrance door is not less than 2500 mm (Figure 38);
- h. exterior floor surface is firm, stable and slip-resistant;
- i. exterior walls are smooth, clean, dry and free from discoloration and 100% non-toxic materials, treated at 100% new items by 2020 (refer to Figure 38);
- j. provide one accessible vanity unit washroom, washrooms are intended for two persons;
- k. provide one accessible gender neutral stall with individual stall and toilet with barrier-free access;
- l. provide motion sensor for automatic illumination in washroom;
- m. visual auditory and visual fire alarm systems; and

For all buildings - Inclusive Design Principles

Typical Organization

Technical content: Graphic, text and “notes” for additional clarification



Accessibility Design Guidelines

5.8 Signage and Wayfinding

Best Practice

Control the use of temporary signage through management procedures / protocols, which typically use improper language, materials and formats. This can also reduce other relevant and accessible signage initiatives.

5.8.1. Maynard's Principles

4. ensure consistent design; strategic placement and ideal mounting heights at key decision-making points along accessible routes for all signage;
 5. ensure signage surfaces have matte, diffused or non-gloss finish
 6. provide colour contrast of at least 70% between signage and mounting surfaces for full visibility.
 7. ensure there is no information overload or cluttering of signage and related information to avoid confusion; and
 8. avoid placing suspended signs against a light source to ensure full visibility
 9. situate at the end of corridors which have windows; glass doors or window walls).



Figure 6B: Working Principle – International Symbols of Accessibility

Use of Photos



Figure 7b: Mounting height and provision of
Benchmark Scenario : Electron Gun

3.7
Site Plan Checklist

Site Plan Checklist

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Checklist Example



Accessibility Design Guidelines

Section 6.0 Special Facilities and Spaces

- This section recognizes that there are always unique considerations

- Intended for additional guidance, but impossible to cover everything

- New: Introduction of the concept of visit-ability ; Other areas include:
Assembly Areas / Meeting Rooms / Libraries / Recreational Facilities / Trails

6.5 Kitchens and Kitchenettes

Application
This section applies to all kitchens and kitchenettes located in buildings used by the public or for the benefit of the public, including restaurants, food service facilities, and other food preparation areas and for community centres, seniors' homes, daycares, and other residential facilities.

Reference
Table 6.5 - Height of Fixed Surfaces
Table 6.5.1 - Seating
Table 6.5.2 - Worktops
Table 6.5.3 - Kitchenette Components
Table 6.5.4 - Accessibility Requirements

6.5.1 Accessibility Requirements
For kitchens and kitchenettes, where applicable, include the following requirements:

- provide clear floor space;
- 1,000 mm wide by 1,200 mm deep for forward approach; and
- 2,200 mm wide by 850 mm deep for side approach; and
- where applicable, give manoeuvring clearances are measured no higher than 1,100 mm above floor level.

6.5.2 Kitchen Amenities
For accessible fixed amenity fixtures and work surfaces:

- ensure clearances between all fixtures, cupboards, equipment and adjacent wall surfaces;
- provide an accessible doorway clearance of 1,050 mm to 1,080 mm high with knee clearance of at least 220 mm wide;
- ensure base unit clearance is 1,050 mm wide and 950 mm high;
- where kitchen equipment are present, provide sufficient accessible work surfaces.

6.5.2.1 Cabinets
Kitchen cabinets and storage units are measured:

- depth at least 500 mm measured from the outer edge; and
- height no more than 500 mm reach from the counter edge; and
- where accessible cabinetry above base height (1,050 mm) than can be easily measured at maximum of 1,200 mm high (e.g., display).



Figure 6.5 Kitchen Amenities

Source of Material - Accessibility Design Committee



Accessibility Design Guidelines

Implementation Considerations

Potential Challenges?



- Resistance from designers/contractors/consulting firms – “we follow the Building Code” / lack of awareness
- Perceived costs of implementing Guidelines may be “high” regardless of any proof – what is the cost of discrimination?
- Need to coordinate review of Town projects against ADG as early as possible – experience over time
- All Town departments and staff may not be aware of ADG or their responsibility to use it in daily operations
- Town can encourage other projects to enhance accessibility – new construction



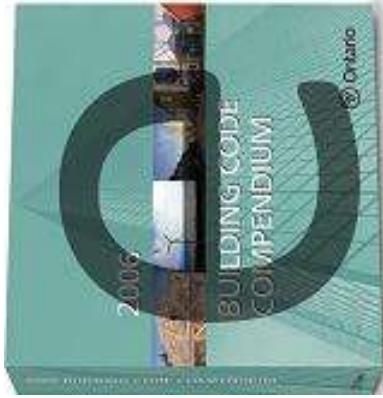
Accessibility Design Guidelines

AODA Update: ABES

Accessible Built Environment Standard (ABES)

- Proposed standard expected to address access into and within buildings and outdoor spaces
- Currently reviewing relationship to Ontario Building Code and likely Cost implications for implementation
- Focus of initial proposed standard on preventing barriers on a go forward basis – new buildings and building undergoing major renovations
- Awaiting Ministry approval: Final proposed standard was submitted to the Minister in Summer 2010 – **CURRENT STATUS UNKNOWN**

Final Proposed
Accessible Built Environment Standard
July 2010





Accessibility Design Guidelines

Next Steps

- Integrate Changes related to feedback

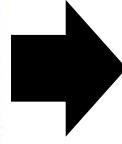
- Adoption of Guidelines for Implementation
(e.g., new construction and retrofits)

- Conduct ongoing Staff awareness and training

- Establish linkages to other Town initiatives –
(Ongoing Process)



Markham Sustainability Pillars



Priority: Social Equity



Accessibility Design Guidelines

Final Thoughts

- Accessible design – often simple and practical solutions that benefit a wide range of users
- **Standards are always evolving** as design evolves and greater understanding of user needs
- **Expect continuous learning** – hard to be an expert in everything
- **Cross-departmental collaboration** can help embrace a culture of accessibility at work and in the community
- Continue to be an **Accessibility Champion** to promote inclusion and address AODA requirements





Accessibility Design Guidelines

Discussion & Questions?



Thank-you!

