

# Checklists

This module contains a series of checklists to help heritage organizations with some of the more involved aspects of accessibility. The checklists can be used in their entirety or piece by piece for specific issues like accessibility brochures and lighting levels.

Note: font styles and effective visual contrast are referred to throughout these checklists. For examples and explanations, see the last three pages of this module.

## Self-Evaluation Checklists

The following checklists have been adapted from a variety of sources, including Access for All Self-Assessment Toolkit: Checklist 1.<sup>1</sup>

### Is your organization ready to create accessibility<sup>2</sup>

Your organization has:

- ☐ An Accessibility Coordinator
- ☐ An Accessibility Work Group
- ☐ A written commitment to accessibility and accommodation

Your Accessibility Coordinator:

- ☐ Is knowledgeable about the facilities, policies, procedures, practices, programs, services and by-laws of your organization
- ☐ Is knowledgeable about disability issues and barriers
- ☐ Understands your organization's finances and business cycles

Your Accessibility Workgroup includes:

- ☐ Invited participants such as senior staff and board members
- ☐ Representatives from key or major departments/committees
- ☐ Managers of buildings and facilities
- ☐ People with disabilities, including staff and volunteers
- ☐ People with personal or professional knowledge of disability issues and barrier removal

Your organization communicates its commitment to accessibility and accommodation:

- ☐ To all parts of the organizational structure
- ☐ To the wider community
- ☐ By linking it to other key objectives, principles and policies

### **Past accessibility initiatives<sup>3</sup>**

Your organization audited itself for barriers:

- ☐ Within the last 3 years
- ☐ Over 3 years ago

The audit was performed by:

- ☐ A member of staff
- ☐ An external consultant
- ☐ A disability consultant or adviser
- ☐ People with disabilities

### **Training<sup>4</sup>**

People in your organization receive training in areas that may include:

- ☐ Understanding accessibility, accommodation, barriers and disabilities
- ☐ Communicating effectively with people who have a disability
- ☐ Implications of the applicable legislation

Training is provided to:

- ☐ All people in your organization regardless of rank or position
- ☐ All staff members and/or volunteers
- ☐ Staff who interact with the public

Training is provided by:

- ☐ People with disabilities
- ☐ People who are experienced with accessibility and disability issues
- ☐ Experts in related fields, i.e., barrier removal, architecture

### **Communicating Your Accessibility<sup>5</sup>**

- ☐ Website and advertising materials (brochures etc.) include information about your organization's accessibility.
- ☐ Accessibility information is in a prominent and logical area of your website and advertising materials.
- ☐ Information accessible and available in alternate formats.
- ☐ Website adheres to accessibility requirements.
- ☐ People in your organization are knowledgeable about your accessibility and volunteer information where appropriate.

## Accessible Meetings and Events Checklist

The following checklist contains general guidelines for planning accessible meetings and events. These guidelines have been adapted from Planning Accessible Meetings by Merrill Associates<sup>6</sup> and Planning for Accessible Meetings by the Accessibility Directorate of Ontario<sup>7</sup>. While the list is not exhaustive, it makes a good starting point.

Please note that not all of the criteria in this checklist will apply to your event or meeting, so use what you need. Organizations that are still in the early stages of accessibility planning may not be able to fulfill some of the criteria. Take notes and bring any problems or concerns to the attention of your Accessibility Coordinator and Work Group.

### First Steps

- ☐ The event planner has been assigned responsibility for making the event accessible.
- ☐ Costs related to accessibility and accommodation are part of the event's budget or receive funding from another source. These costs cannot be recovered by charging people with disabilities increased or additional fees.

### Presenters and Guest Speakers

- ☐ Responsibility for producing alternative formats has been assigned to either your organization or the presenter.
- ☐ Where the organization is responsible for alternative formats, presenters have been given a deadline to submit their materials.
- ☐ Presenters have been made aware of your organization's accessibility and accommodation policies.
- ☐ Guidelines for accessible presentations have been given to the presenters.
- ☐ Presenters have been asked about the equipment they require and how they intend to give their presentation, e.g., seated at a table with an overhead projector.
- ☐ The accessibility and accommodation needs of the presenters themselves have been met.

Presenters have been instructed that they will need to:

- ☐ Describe all visuals verbally
- ☐ Explain all technical terms or jargon in the presentation
- ☐ Print visual aids in as large a size as possible

- ☐ Provide captioning or transcripts for films, slide shows and video tapes (unless the organization will do this)
- ☐ Provide a copy of speeches or notes for the audience's reference during the presentation
- ☐ Use the amplification system provided
- ☐ Speak clearly and at a normal pace
- ☐ Always face the audience when speaking
- ☐ Avoid covering their mouths with hands while speaking
- ☐ Repeat all audience questions aloud (unless the audience has access to the amplification system)
- ☐ Maintain the line of sight of any interpreters or describers, i.e., do not walk between an interpreter and the audience

## **Location**

- ☐ The event's location has been investigated for accessibility.
- ☐ The location has been recommended by an organization with expertise in accessibility.
- ☐ There are required resources in the local area, such as interpreters, veterinarians for service animals and wheelchair repair.
- ☐ The location can be reached by accessible modes of transportation.
- ☐ For long events, such as a three-day conference, the location has accessible amenities in the area, e.g., restaurants, hotels.
- ☐ Inquiries have been made regarding any planned construction, repairs or renovation that may affect the location's accessibility at the time of the event.
- ☐ Staff at the location have received training or are knowledgeable about accessibility and disability issues and provide guidelines and advice where necessary.

## **Invitations and Promotional Materials**

- ☐ Are available in standard print and alternative formats.
- ☐ Include information about the availability of alternative formats.
- ☐ Include a statement of your intent to provide accessibility.
- ☐ Include information about the event's accessibility.
- ☐ Provide contact information and a reasonable deadline (such as ten days before the event) for making accessibility requests.
- ☐ Are sent out well in advance of the event so that your organization has time to respond to requests and people with disabilities have time to make their own arrangements.
- ☐ Include return portions or registration forms with an area for making accessibility requests.

## Exterior Signs

- ☐ Signs for street address and/or building name are easy to see from the street.
- ☐ Evening events: signs are well lit.
- ☐ Outdoor events: directional signs indicate where the event is located.
- ☐ Auxiliary: staff or volunteers are available throughout the event area to direct or assist people.
- ☐ Signs are designed and positioned to be accessible.

## Parking

- ☐ Accessible parking spaces are available or, where possible, made available by reserving parking close to the building's entrance.
- ☐ Accessible parking spaces meet or exceed applicable guidelines.
- ☐ Weather-related hazards (such as snow and ice) are guaranteed to be removed for the event.
- ☐ Other accessible parking lots (metered or public) are close by in case demand should exceed supply.

## Sidewalks, Paths of Travel

- ☐ There is a barrier-free path of travel from the parking lot or drop area to the meeting entrance.
- ☐ Weather-related hazards (such as snow and ice) are guaranteed to be removed for the event.
- ☐ Ramps meet applicable guidelines.
- ☐ Sidewalks meet applicable guidelines.

## Transit

- ☐ The location can be reached by accessible or parallel transit services.
- ☐ There is a drop-off area in front of the building, preferably covered.

## Entrances and Lobbies

- ☐ The building has an accessible entrance. Note the following:
  - The main entrance is strongly preferred
  - Major entrances are acceptable

- Undignified or inconvenient entrances are unacceptable  
Example: a back door that cannot be used independently and requires staff to unlock
- ☐ Where the main entrance is inaccessible, there are clearly visible signs at the front of the building directing users to the accessible entrance.
- ☐ Entrances are well lit.
- ☐ Entrances are not in isolated locations.
- ☐ Entrances do not lead to locked doors that require staff to unlock or the use of an intercom, buzzer, or bell to gain access.
- ☐ Doors are easy to open, ideally with a lever handle or an automatic opener.

## Interior Signs

- ☐ Directional signs indicate where the event is located in the building.
- ☐ Directional signs indicate where amenities and facilities, such as washrooms, are located in the building.
- ☐ Signs are designed and positioned to be accessible.
- ☐ Staff or volunteers are available at doorways and throughout the building to direct or assist people.

## Elevators

- ☐ Elevators are large enough to accommodate scooters and electric wheelchairs.
- ☐ There are enough elevators to conveniently transport the estimated number of people who will require them. Consider: number of elevators, capacity, average speed, number of participants known or estimated to require an elevator.
- ☐ Lifts are easy to operate and are large enough to accommodate scooters and electric wheelchairs.
- ☐ Braille buttons/stickers or raised numerals are provided to assist people who use Braille or have low-vision.
- ☐ Controls are at a comfortable height for people who are seated in wheelchairs or scooters.
- ☐ Elevators have an auditory signal to indicate their operations, i.e., door opening or closing, changes between floors.
- ☐ Elevators have a visual cue system in each lobby for people who are deaf, deafened or hard of hearing.



## Accessible Washrooms

- ☐ Washrooms are large enough to accommodate a scooter or electric wheelchair.
- ☐ Doors have a raised tactile sign with male or female symbol, or Braille lettering.
- ☐ Doors are easy to open, ideally with a lever handle or automatic door opener.
- ☐ There is a minimum of one accessible unisex washroom on the same floor and in close proximity to the event.
- ☐ Hardware such as faucets, dryers, soap and paper towel dispensers are within reach of people who are in wheelchairs and scooters.
- ☐ There are a sufficient number of accessible washrooms for the estimated number of people who will require them.

## Hallways and Corridors

- ☐ Hallways and doorways that will be used are wide enough for wheelchairs and scooters.
- ☐ Doors are easy to open, ideally with a lever handle.
- ☐ Floors and carpeting do not interfere with walking or the use of wheelchairs and scooters, e.g., thick carpet can be difficult to walk on or roll over.

## Event Room or Area

- ☐ Preferably located on the building's entry floor.
- ☐ Floor space is large enough for the easy movement of wheelchairs and scooters. Furniture may need to be rearranged or removed.
- ☐ Floor space is large enough to accommodate mobility aids and service animals. Furniture may need to be rearranged or removed.
- ☐ Where there is seating, accessible seating is provided throughout the area.
- ☐ Furniture is accessible.
- ☐ Stage, speaking area and equipment such as podiums are accessible.
- ☐ If an interpreter is to be present, they will be provided with a well-lit space, clear line of sight, and a neutral backdrop.
- ☐ Room or area is free of distracting noises, such as ventilation systems, machines, and sounds from other rooms.
- ☐ The room or area has good acoustics and is free of echoes.
- ☐ Windows have drapes, blinds, or other mechanisms to control the amount of light.
- ☐ Cables, wires, and other equipment do not block traffic or interfere with mobility.

## **Service Animals**

- ☐ Water bowls are provided on request.
- ☐ Space is provided for service animals in the event room or area.
- ☐ There is a suitable relieving area for service animals.
- ☐ The relieving area is accessible, i.e., barrier-free path, easy to open door, no locked doors.
- ☐ There are accessible signs directing owners to the relieving area.

## **Telephones**

- ☐ Telephones have auditory adjustments.
- ☐ TTY (teletype) devices are available.
- ☐ At least one of the available telephones can be used by a person who is seated.

## **Fire Safety**

- ☐ The location has visual fire alarms.
- ☐ The location or the event planner has a prepared evacuation plan that addresses disability issues.

## **Food and Beverages**

- ☐ If beverages are served, they are positioned in easy reach of people in wheelchairs and scooters.
- ☐ Lightweight cups and bendable straws are provided.
- ☐ Non-sugar beverages are available.
- ☐ If food is served, people with dietary restrictions will be accommodated.
- ☐ Buffet or self-serve areas are accessible.
- ☐ An assistant, such as a volunteer or member of the catering staff, has been assigned to help people with disabilities access the buffet or self-serve food.

## **Other Considerations**

- ☐ Customer service areas such as counters, tables, displays, can be viewed and accessed by people who are seated.
- ☐ Any additional signs for the event are accessible.
- ☐ The website for the event is accessible.
- ☐ The website contains accessibility information for the event.



## Accessible Exhibit Design

The following series of checklists can be used in sequence to evaluate the design and components of an exhibit or they can be used separately for your general purposes. Most of the checklists have some link to each other but can generally be used independently or in groups.

Organizations that are still in the early stages of accessibility planning may not be able to fulfill some of the criteria. Take notes and bring any problems or concerns to the attention of your Accessibility Coordinator and Work Group.

Except where noted, these checklists have been adapted from the Smithsonian Guidelines for Accessible Exhibition Design.<sup>8</sup>

### First Steps

- ☐ The exhibit designer has been assigned responsibility for making the exhibit accessible.
- ☐ Costs related to accessibility and accommodation are part of the exhibit's budget or receive funding from another source. These costs cannot be recovered by charging people with disabilities increased or additional fees.

### General Publicity<sup>9</sup>

Your organization promotes itself and its services to people with disabilities using at least one of the following:

- ☐ Information and displays in reception areas
- ☐ Features in local media and press
- ☐ Publicity targeted at disability organizations and groups
- ☐ Publicity in schools and community centres
- ☐ Publicity via Talking Newspapers, subtitled videos, audiotapes etc.

Your organization's main service brochure and website:

- ☐ Contain accessibility information
- ☐ Are written in clear, plain language
- ☐ Are produced using clear print guidelines and website accessibility guidelines.

## Accessibility Brochure<sup>10</sup>

Your organization provides a separate accessibility service brochure that:

- ☐ Includes information about your organization's accessibility and the amenities that are available
- ☐ Is available in alternative formats
- ☐ Includes contact information for making accommodation requests
- ☐ Has a statement of your organization's commitment to accessibility

Your accessibility brochure includes information for people:

- ☐ Who are blind or have vision disabilities
- ☐ Who are Deaf or have hearing disabilities
- ☐ Who have mobility-related disabilities
- ☐ With learning disabilities
- ☐ With mental health disabilities

## Presenting your Content

Goals:

- Content is accessible to multiple intellectual levels
  - Content is accessible through multiple sensory channels
- 
- ☐ There is a programmatic path of travel to help people understand the content. This can take the form of story lines, themes, repeated elements or other means of linking information.
  - ☐ The presentation is orderly and easy to follow.
  - ☐ Complex or unstructured (free form) presentations are accompanied by explanatory handouts, audiovisuals or other aids to help make sense of the content.
  - ☐ Explanatory handouts, audiovisuals or other aids are clearly linked to the content using colour coding, numbering, mapping or other methods. Note: do not use colour coding by itself.
  - ☐ The content is presented for all the senses.
  - ☐ Combinations of audio, visual and tactile (where applicable) are used to present the information.
  - ☐ Users have a choice of which format they will use.
  - ☐ Visual and audio elements do not overlap in a way that can cause confusion, i.e., visually noisy areas are balanced by visually quiet areas.
  - ☐ In exhibit settings, noises are controlled or isolated using receivers and acoustic treatments.

## Text and Labels

### Goals:

- Information is accessible to people who have a different first language, such as the Spanish or American Sign Language
- Information is accessible to people who are not familiar with technical terms and jargon
- Labels for exhibits are easy to read

### Comprehension

- ☐ Text avoids the use of colloquialisms, jargon or technical language unless there are complementary plain speech explanations.
- ☐ Text is written in the active voice (subject-verb-object) and in short sentences, e.g., The dog (s) ran (v) to the girl (o).
- ☐ Sentences are a maximum of 25 words, 15 is preferable.
- ☐ Exhibit labels are a maximum of 75 to 100 words.
- ☐ Line length is limited to avoid confusion. Average of 55 characters per line, 45-55 is the preferred column width.
- ☐ Summary or overview sentences are provided in large print, to prevent fatigue.
- ☐ Sentences are straightforward, clearly linked and limited to one idea.
- ☐ Graphics, line drawings or photographs are provided to complement the text. This aids the user's comprehension.

### Typeface and Font

- ☐ Typefaces are sans serif or simple serif, like Arial (most of this document) and Times New Roman.
- ☐ Legible proportions are employed. Avoid unusually thin or thick line weights, narrow or wide characters and condensed or widely spaced characters.
- ☐ Lowercase letters (b, d, g, h, j, k, l, p, t, y) have a clear extension.
- ☐ Numbers are clearly identifiable and distinguishable, especially 5, 6 and 8.
- ☐ Text does not employ "all caps" or all lower-case, except for titles or decorative purposes.
- ☐ Italics and scripts are avoided. Where used, the information is repeated in oblique type.
- ☐ Underlines, "quotation marks" or other techniques replace the traditional use of italics in citations, titles and references.

## Alternate Formats

- ☐ Written material is reproduced in alternate formats, such as Braille, audio, large print and electronic.
- ☐ Alternate formats are provided in the exhibit space, near a well-lit seating area.

## Format

- ☐ Sufficient leading (space between lines measured from baseline to baseline) is provided. Should be at least 20% greater than the font size used.
- ☐ Letter and word spacing is consistent.
- ☐ The left margin is justified and the right margin is ragged. Fully justified text is okay if it doesn't affect the word and letter spacing.
- ☐ If text on a label is centred, it is no more than three lines long.
- ☐ There is high contrast between the text and the background. Dark on light is preferable, though in the case of backlit labels light letters on a dark background is acceptable.
- ☐ When using light type on a dark background, the type has greater weight and letter spacing.
- ☐ All backgrounds are solid. Type set over an image, textured or patterned background may be illegible for people with low vision unless the darkest possible print is employed with a minimum of 5% contrast to the background.
- ☐ Non-glare surfaces are employed. Glare can make it difficult or impossible for someone with low vision to read text.
- ☐ Type is not distorted by shadows or the materials employed. Example: type on a clear Plexiglas panel will have a shadow. Clear Plexiglas labels should have the type screened onto them, then a solid colour screened on the back.

## Position and Approach

- ☐ Exhibit labels are approachable. People with low vision may need to be able to get within 75 mm (3 in.) of the label.
- ☐ Exhibit labels or lighting is positioned so that shadows from readers or nearby objects do not fall on the label.
- ☐ Exhibit labels and signs are not placed near protruding objects, in the path of opening doors, near stairs or any other inconvenient or dangerous location.
- ☐ Exhibit labels are accessible and in the natural line of sight. They are not placed on the back wall of a case, behind a glass case, or flat

on the floor of a case. They are as close to the front of the case as possible and preferably angled at 45 degrees.

- ☐ Colour or raised surfaces are used to define labels, making them easier for people with low vision to find.
- ☐ Wall labels are mounted between 1220 mm (48 in.) and 1675 mm (67 in.), which is a comfortable viewing height from seated or standing positions. A centreline of 1370 mm (54 in.) above the floor is optimum (see Fig. 1, page 24 of this module).
- ☐ Rail labels are mounted 1015 mm (40 in.) above the floor, which is a readable height from both seated and standing positions. Lower than that, and people with low vision may be forced to kneel to read the label.
- ☐ Labels are located in consistent locations. Varying the location may make it difficult for people to find them.
- ☐ Lighting on the label and the area surrounding it is between 100 and 300 lux.

## Visual Considerations for Display Items

### Goals:

- Items on display are visually accessible
- Visual confusion and clutter is avoided so that people can clearly distinguish individual items
- Items can be viewed at accessible angles and distances

### Visual Clarity

- ☐ Backdrops are simple and uncomplicated to reduce visual confusion.
- ☐ Background colours sufficiently contrast with exhibition items. A minimum 70% contrast is recommended.
- ☐ Multiple objects are not clustered or placed in staggered positions. This will reduce visual clutter.
- ☐ Small items are in the front portion of the case and larger items are towards the rear.
- ☐ Shadows cast from objects or observers do not fall directly on items, thereby obscuring them.

### Viewing Angle and Distance

- ☐ Small items are mounted no higher than 1015 mm (40 in.) above the floor. People who are seated will have difficulty viewing objects above this level.

- ☐ For items mounted flat on pedestals or decks, the top of the case is a maximum of 915 mm (36 in.) above the finished floor, large items maintain the minimum case height possible.
- ☐ Shallow cases are used wherever possible. Extra glass (i.e., taller or wider than necessary) prevents people from viewing objects at the desired angle and distance.
- ☐ Exhibition railings have a maximum height of 915 mm (36 in.).
- ☐ Items are not positioned in a manner where exhibition railings would block the view of people who are short or seated, i.e., directly behind the railing.

## Lighting

- ☐ 100 lux of light is provided wherever conservation standards allow.

Where conservation standards demand a maximum of 50 lux of light, the exhibit items:

- ☐ Are positioned to allow visitors to approach as closely as possible.
- ☐ Are not spotlighted – Lighting should be even throughout the exhibit space as sharp changes in light levels can be disorienting for people whose eyes do not adjust quickly.
- ☐ Have a background that is of the highest contrast.
- ☐ Have reproductions or alternate formats provided in another, well-lit room.
- ☐ Are accompanied by large photographs or brochures.

## Circulation Route

Goals:

- The circulation route is accessible.
- The circulation route is well-lit, clearly defined and easy to follow.

## Space for Wheelchairs and Scooters

- ☐ One-way travelling routes are at least 915 mm (36 in.) in width, 1525 mm (60 in.) is ideal.
- ☐ One-way routes where patrons may be expected to pause are at least 1525 mm (60 in.) in width. Example: where people might stop to look at an object or use a water fountain.
- ☐ Two-way traffic routes are at least 1525 mm (60 in.) in width.
- ☐ All access points such as doors, gates and entrances are accessible (i.e., easy to manipulate, can be used independently).



- ☐ A clearance space of 760 mm by 1220 mm, (30 in. by 48 in.), is provided on all sides of exhibit cases and glass cases. This is the approximate amount of clear floor space required by a wheelchair user.
- ☐ Clearance space overlaps or connects to the circulation route.

Where circulation routes are less than 1525 mm (60 in.) wide at least one of the following is provided:

- ☐ Passing spaces with a minimum dimension of 1525 mm by 1525 mm (60 in. by 60 in.), spaced along the route at intervals of no more than 61 m (200 ft.).
- ☐ T-shaped intersections of two pathways, minimum of 915 mm (36 in.) wide, spaced at intervals of no more than 61 m (200 ft.).

### **Turning and Manoeuvring**

- ☐ Wide turns: where there is an obstruction of 1220 mm (48 in.) or more in width, then there is clearance space of at least 915 mm (36 in.) on each side of the obstruction (see Fig. 2, page 25 of this module).
- ☐ Narrow turns: where there is an obstruction of less than 1220 mm (48 in.) in width, then there is a clearance space of 1065 mm (42 in.) on the approach, 1220 mm (48 in.) in the turn and 1065 mm (42 in.) in the departure (see Fig. 2, page 25 of this module).

People using wheelchairs should not have to reverse for more than 915 mm (36 in.), especially in crowded situations. Where routes branch, the end of the branch is provided with either:

- ☐ a circle at least 1525 mm (60 in.) in diameter; or
- ☐ a 915 mm (36 in.) deep T-shaped turning space.

### **Head Clearance, Tripping and Safety Hazards**

- ☐ There is at least 2030 mm (80 in.) of clear headroom along and next to the circulation route.
- ☐ The floor of the circulation route is stable, firm and slip-resistant.

Where hanging objects or low ceilings intrude on the circulation route, there is at least one of the following:

- ☐ A cane-detectable barrier no more than 685 mm (27 in.) from the ground.
- ☐ A cane-detectable object or guard rail beneath it. Detectable warnings

like changes in surface texture are insufficient for overhead barriers.

Wall-mounted objects do not protrude more than 100 mm (4 in.) from a surface unless they meet one of the following specifications:

- ☐ They are mounted close enough to the floor to be detected by a cane, which means a lower edge of no more than 685 mm (27 in.) from the floor.
- ☐ They are mounted high enough that they do not pose a head clearance problem, which means a lower edge of no less than 2030 mm (80 in.) above the floor.
- ☐ They have an added cane-detectable barrier or object of comparable size and dimension beneath them, i.e., a large potted plant (see Fig. 4 and Fig. 5 page 26 of this module).
- ☐ They are behind a cane-detectable barrier or are otherwise removed from paths of travel.

Low height (less than 305 mm or 12 in. above the floor), floor-mounted objects avoid posing a tripping hazard to everyone by:

- ☐ Being positioned well outside the path of circulation.
- ☐ Being well-lit.
- ☐ Having a surface colour that contrasts highly with the floor colour.

### **Changes in Floor Level**

- ☐ The circulation route does not have a slope greater than 5%. If it exceeds 5% then it becomes a ramp and must meet guidelines for ramps.
- ☐ Any slope that crosses the circulation route, i.e., at an intersection, does not exceed a slope of 2%.

Changes in floor levels are addressed appropriately according to the following specifications:

- ☐ Vertical differences of less than 6.5 mm (1/4 in.) are acceptable.
- ☐ Vertical differences between 6.5 mm and 13 mm (1/4 in. and 1/2 in.) have a beveled edge with a slope of 1:2.
- ☐ Vertical differences greater than 13 mm (1/2 in.) are ramped.
- ☐ The circulation route is free of stairs and steps unless ramps, lifts, or elevators are adjacent to them.
- ☐ All carpet or tile flooring is securely attached.
- ☐ All carpet is level, with a maximum pile thickness of 13 mm (1/2 in.), and a firm pad or no pad underneath. Thick carpets and mats can interfere with mobility.

- ☐ Changes in level caused by different types of flooring are addressed by beveling where necessary.

### Other Considerations

- ☐ Circulation route lighting is a minimum of 50 to 100 lux.
- ☐ Nonverbal wayfinding methods are provided along the circulation route.
- ☐ Some suggestions include: colour coding, changes in surface texture, symbols and colour contrast of 70% between the path and the edge of the path.
- ☐ All elements, including walls, floors, furniture and cases, are clearly defined using high contrast (70%) and directed lighting.
- ☐ A floorplan is available in standard print, large print and tactile formats such as raised line drawings.
- ☐ The circulation route has more than one exit, especially in large exhibits where a mid-point exit can be important for those who need to leave unexpectedly.

### Item Placement

Goal:

- Objects added to the environment do not create a hazard for people.

Wall-mounted objects do not protrude more than 100 mm (4 in.) from a surface unless they meet one of the following specifications:

- ☐ They are mounted close enough to the floor to be detected by a cane, which means a lower edge of no more than 685 mm (27 in.) from the floor.
- ☐ They are mounted high enough that they do not pose a head clearance problem, which means a lower edge of no less 2030 mm (80 in.) above the floor.
- ☐ They have an added cane-detectable barrier or object of comparable size and dimension beneath them, i.e., a large potted plant.
- ☐ They are behind a cane-detectable barrier or are otherwise removed from paths of travel.

Objects that hang from above have at least one of the following:

- ☐ A lower edge of no more than 685 mm (27 in.) from the floor.
- ☐ A lower edge of no less 2030 mm (80 in.) above the floor.
- ☐ An added cane-detectable barrier or object of comparable size and dimension beneath them.

- ☐ They are placed behind a cane-detectable barrier or are otherwise removed from paths of travel. Detectable warnings like changes in surface texture are insufficient for overhead barriers.

Low height (less than 305 mm or 12 in. above the floor), floor-mounted objects are prevented from being a tripping hazard to everyone by:

- ☐ Being positioned well outside the path of circulation.
- ☐ Being well-lit.
- ☐ Having a surface colour that contrasts highly with the floor colour.

Platforms for objects:

- ☐ Have colours that contrast highly with floors and walls.
- ☐ Do not have sharp corners.
- ☐ Never project into the path of travel in an unpredictable fashion.

## Furniture

Goals:

- Displays are accessible to viewers at different heights and angles.
  - Furniture does not pose a safety hazard.
  - Accessible seating is provided.
- 
- ☐ Cases and pedestals meet the standards for viewing access and for safety as laid out in the "Visual Considerations for Display Items" Checklist on page 13 of this module.
  - ☐ Wall-mounted cases have a lower edge of 685 mm (27 in.) above the floor, which allows them to be cane-detectable and gives knee clearance to wheelchair users.
  - ☐ Objects supported by legs spaced more than 305 mm (12 in.) apart have a cane-detectable barrier no higher than 685 mm (27 in.) above the floor.
  - ☐ Circulation route has a predictable border on both sides, with no objects protruding into the route area.
  - ☐ Cases have good lighting, well-defined edges and interiors (especially the floors of large cases) that are distinct from the surrounding walls and floor so that they are not mistaken for openings or doorways.
  - ☐ Plexiglas and other see-through materials are marked in a way that makes them easily detectable to people with low vision. Edges and corners should be rounded for safety.
  - ☐ Seating is provided in the exhibition space.

## Accessible Seating

- ☐ 50% of seating provided is accessible.
- ☐ Seats are between 430 mm and 510 mm (17 in. and 19 in.) above the floor.
- ☐ Seats have arm and back support, important for getting in and out.
- ☐ Seats have a firm seat and back.
- ☐ Back has a minimum upper edge of 455 mm (18 in.) above the seat with proportionate arm height.
- ☐ Seating is not a tripping hazard or obstacle because of placement, low lighting or poor colour contrast.
- ☐ Seating is accessible to wheelchair users. This requires a 760 x 1220 mm (30 in. x 48 in.) clearance space, which allows the wheelchair user to transfer to the seat or to station the wheelchair beside the seat, which may be occupied by a companion.
- ☐ Seating is never placed so that it is an obstacle to movement, especially in regards to route requirements of mobility impairments or to the operation of interactives and equipment.
- ☐ Written text is never placed above seating, as this impedes access for people with low vision.

## Colour Schemes

### Goals:

- Colours are used to create an environment that is clearly articulated, comfortable and safe.
- Colours and patterns do not cause confusion about depth, height or the condition of the floor.
- Colours do not interfere with visual access.
- ☐ There is at least 70% contrast between the colours of the walls, floors and furniture. Articulation is necessary to prevent visual "blending" where it is difficult to distinguish separate components, such as a room that has black walls, floors and furniture.
- ☐ Contrasting baseboard strips are employed to help articulate the separation between floor and wall.
- ☐ Where low lighting is required, the colours of the room are light.
- ☐ Visually quiet areas have been provided throughout the space for people using sign language.
- ☐ Quiet areas should have few or no visual distractions.
- ☐ Quiet areas are well-lit and have solid backgrounds.
- ☐ Patterned carpets and floors are avoided or used only in good and even light and on even surfaces. Patterns and high polish glare can negatively impact how a person perceives the depth and condition of the floor.

## **Tactile Reproductions**

### **Goal:**

- Provide an alternative to visual access for display objects.
- ☐ Items essential to the main theme of the exhibit have been selected to be touched or have been reproduced to be touched.
- ☐ Items selected or reproduced are related to each other by context and space and are illustrative of the exhibit's topic.
- ☐ Segregation and limits to access are avoided except in cases where access must be very limited for conservation reasons, such as a special chance to handle an original work.
- ☐ Selected items or their reproductions are available to all visitors.
- ☐ Selected items or their reproductions are easy to obtain, i.e., no need to ask for items or identify yourself as a person with a disability.
- ☐ Selected items or their reproductions are included in the main exhibit space, not in separate rooms.
- ☐ Audiodescription is provided for objects that cannot be touched or that would offer very little benefit from being touched, e.g., watercolour paintings.
- ☐ Audiodescription is provided to complement touchable objects and to fill in details that are not sensed through touch, such as colour.

## **Audiovisuals and Interactives**

### **Goals:**

- All soundtracks are captioned or accompanied by a verbatim script.
- All visuals are audio described.
- Interactives are accessible.
- ☐ Closed or open captioning is provided for all audio produced by the organization.
- ☐ Closed or open captioning is provided for all audio produced by other parties, but presented in an exhibit with a duration of more than three months.
- ☐ Verbatim scripts, mounted next to the audio component, will be provided for temporary (exhibited less than three months) audio presentations.
- ☐ Verbatim scripts are a minimum 16-point type, have visual cues to match the presentation and are lit sufficiently for reading.
- ☐ Ambient sounds and other sounds are identified in verbatim scripts.



- ☐ Visitor-operated volume controls are provided for non-narrated audio programs. Hand-held audio receivers are ideal for providing access to music for people who need above-average volume to hear.
- ☐ Components that usually have sound but in this case do not, i.e., a silent video, are clearly labelled so that people know that they are not being deprived of information.
- ☐ Audio description is presented for information that is presented visually, such as print, the visuals of audiovisual programs and computer interactives.

### **Interactives**

- ☐ Instructions for use of interactives are in audio and printed format.
- ☐ Instructions for use of interactives are in step-by-step, short sentences, accompanied by illustrations or demonstrations.
- ☐ Written instructions for interactives meet the same standards for readability as labels.
- ☐ Controls for interactives must be reachable from a seated or standing position or for various heights.
- ☐ Controls for interactives are not obstructed by exhibit furniture.
- ☐ For a forward approach in a wheelchair, controls must be placed within 1220 mm (48 in.) and 380 mm (15 in.) above the floor. A parallel approach requires they be placed between 1370 mm (54 in.) and 230 mm (9 in.) above the floor.
- ☐ Glare and reflection on surfaces and monitor screens has been eliminated, with special attention to viewing angles of standing and seated positions and for various heights.

### **Disability as Subject Matter**

Goal:

- To include the experiences of people with disabilities in the content and presentation of the exhibition.
- ☐ The exhibit represents people with disabilities in its topics, perspectives or exhibit pieces.
- ☐ Disabilities and people with disabilities are discussed where relevant.
- ☐ Appropriate language is used, i.e., language that doesn't cast people with disabilities in a heroic, tragic or deficient light.
- ☐ The latest terminology is used in discussing disabilities and disability issues.

## Capacity and Crowd Management<sup>11</sup>

### Goals:

- Maintain a safe and comfortable environment.
- Prevent overcrowding and hazardous situations.
- ☐ Regardless of rank, every person is trained for crowd control and emergency procedures.
- ☐ No member of the organization is exempt from the responsibility of implementing emergency evacuation procedures.
- ☐ The capacity of the chosen exhibit space is correlated to the projected number of visitors and revenue goals.  
Example: you wouldn't put an expensive exhibit in a small space and then try to make your profit through overselling to large crowds.
- ☐ Where capacity is a concern, visitors are admitted using an orderly system such as timed entry.
- ☐ The mechanics of the entry system, i.e., arrival time, entrance location etc., are clearly explained to reduce confusion.
- ☐ Exhibit capacity has been estimated as accurately as possible, erring on the side of caution and using staggering to account for variable crowd levels.
- ☐ Staff are prepared for latecomers and allow people in early where possible and convenient.
- ☐ The effect of tour groups has been included in the exhibit capacity calculations. People who arrive (and leave) on their own are easier to accommodate than people who move together as a tour group.
- ☐ Information is presented in a space outside the exhibit in audio-visual format in order to facilitate understanding of the exhibit, improve movement through the exhibit and avoid congestion within the exhibit. This can also be used as a tool for crowd control or a holding area for reducing congestion.
- ☐ Signs for the path of travel, for ticketing and for other important aspects of the exhibit are clear, noticeable and easily read and understood. Signs do not have to be obtrusive, but they should never be hidden, covered or otherwise difficult to see.
- ☐ Spacious waiting areas have been provided outside the exhibit.
- ☐ Building and fire codes have been used in the exhibit design.
- ☐ Doorways and exit paths have been preserved. They should never be hidden, covered, blocked or otherwise difficult to see and use.
- ☐ Room capacity is based on actual clear floor space. Any objects or furniture added to the room will decrease capacity.

- ☐ The density of objects in an exhibit space has been carefully controlled so that items that are very popular, very detailed (requiring more attention) or very small are not located in the first section of the exhibit, near the entrance or clumped together. Even distribution and careful placement of these objects will help avoid congestion.
- ☐ Guards or other members of staff are placed at strategic points to guide patrons as necessary.
- ☐ Maze-like exhibit design has been avoided.
- ☐ Security requirements have been taken into consideration when planning the layout of the exhibit and when calculating the floor space. Some security measures might require barriers, rails or other items that take up space.
- ☐ Ample escape routes are provided and are readily apparent to visitors.

## **Emergency Exits & Alarms**

### **Goals:**

- Maintain a safe environment.
- Prevent hazardous situations.

## **Emergency Egress**

- ☐ There are sufficient accessible emergency exits from the exhibition space. Consult applicable fire and building codes.
- ☐ Areas of rescue or safe waiting areas are provided where there is not a sufficient number of accessible emergency exits from the exhibit space.
- ☐ Areas of rescue are equipped with an intercom system connected to the fire control area, allowing persons in the area to give and receive information.
- ☐ Electric wheelchair lifts are connected to emergency power sources.
- ☐ Emergency plans reflect the use of lifts.
- ☐ Emergency exits are designed to lead to accessible exit routes.
- ☐ Accessible emergency exits are clearly marked with the international symbol of access (figure drawing of a person in a wheelchair).
- ☐ Inaccessible emergency exits have clear directions to accessible emergency exits or areas of rescue.
- ☐ Emergency exit signage is accessible.
- ☐ Floor plans with clearly marked accessible emergency exit routes are provided at key points in the exhibit.

## Visual and Audible Fire Alarms

- ☐ Visual and audible fire alarms are installed.
- ☐ Visual fire alarms flash at a rate of between 1Hz and 3Hz.  
NOTE: This is very important as a flash rate of approximately 5Hz can trigger seizures in people with photosensitivity. Seek advice from the proper authorities.
- ☐ Where there are multiple visual fire alarms in one area, they are synchronized to avoid the possibility of a collective flash rate of 5Hz. Seek advice from the proper authorities.

## Figures for Exhibit Checklists

Source: Smithsonian Guidelines for Accessible Exhibition Design

**Fig. 1 Average Viewing Sightlines**

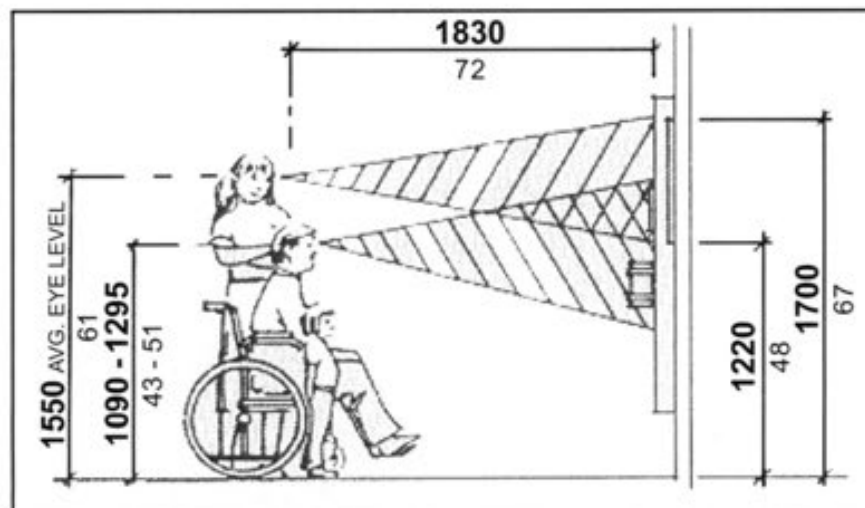


Figure shows average viewing sightlines for a person standing and for a person using a wheelchair.

**Fig. 2 Turning space on accessible routes**

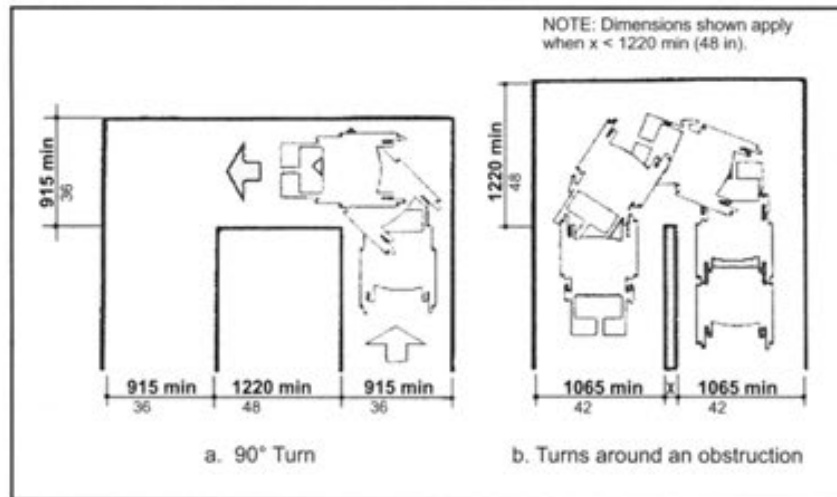


Figure shows two examples of turning requirements for wheelchairs going around obstacles.

**Fig. 3 Space requirements for turning a wheelchair**

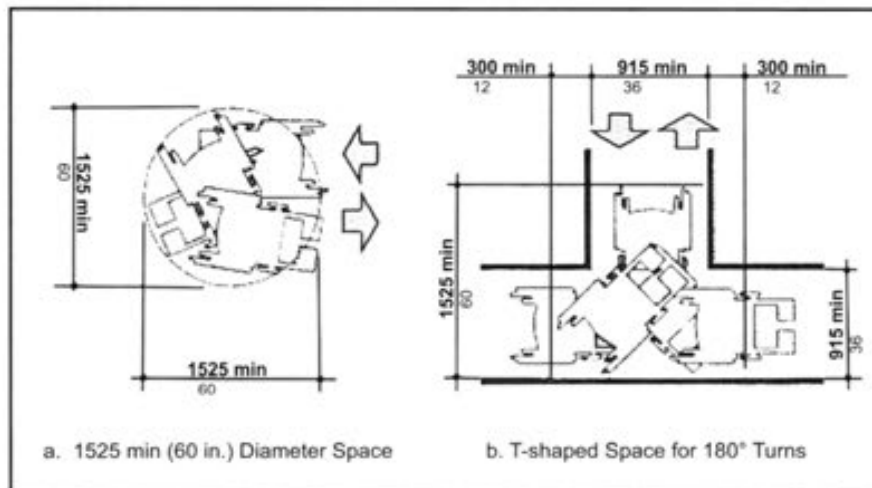


Figure shows the space requirements for turning a wheelchair to face the opposite direction and for making a 180-degree T-shape turn.

**Fig. 4 Protruding Object Hazard**



Figure shows cane user in contact with wall-mounted object/casing. Objects mounted above 685 mm (27 in.) are a hazard for cane users.

**Fig. 5 Protruding object warning**



Figure shows cane user in contact with a cane-detectable object on the floor.



**Fig. 6 Minimum clear width for single wheelchair**

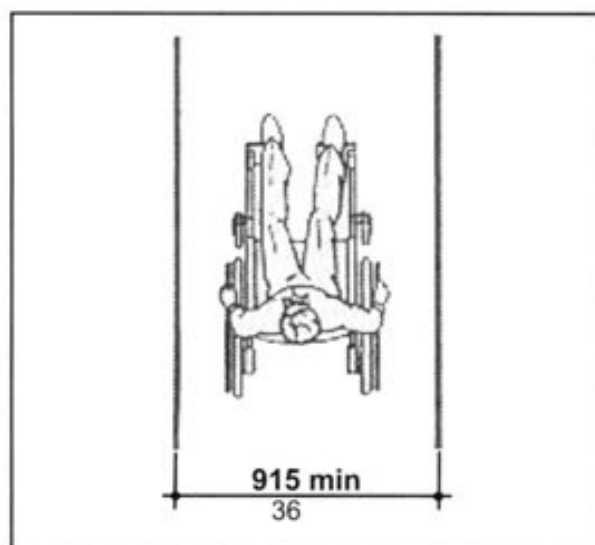


Figure shows a person in a wheelchair travelling through a space that is 915 mm (36 in.) wide.

**Fig. 7 Minimum clear width for two wheelchairs**

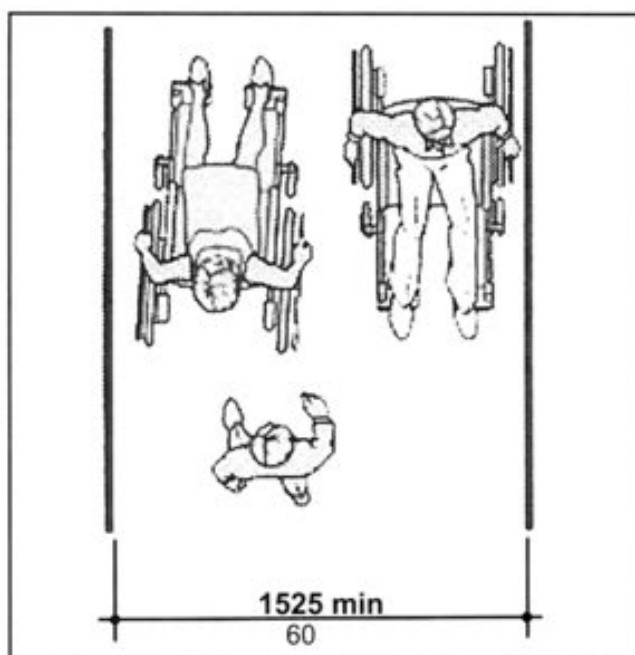


Figure shows two people in wheelchairs passing each other in a space that is 1525 mm (60 in.) wide.

# Typefaces and Fonts

## Typeface

Simple sans serif fonts like Arial, or simple serif fonts like Times New Roman are the easiest to read.

## Style

Italics and scripts are avoided. Where used, the information is repeated in plain, oblique type.

Italic Example:

*This artifact was discovered when we renovated the front lobby.*

Script Example (Edwardian Script ITC):

*This artifact was discovered when we renovated the front lobby.*

Oblique Alternative:

This artifact was discovered when we renovated the front lobby.

## Proportion

Avoid unusually thin or thick line weights, narrow or wide characters, and condensed or widely spaced characters.

Light:	This museum is dedicated to
Bold:	<b>the preservation</b>
Narrow:	of local artifacts and history.
Wide:	The museum is open
Condensed:	weekdays and Saturdays
Wide Space:	all summer long.

Typefaces and fonts of unusual proportions can be very difficult to read, especially if used for more than one sentence.

## Emphasis

To create emphasis, use underlines, "quotation marks", or other techniques instead of italics or scripts. Also useful for citations, titles and references.

## Effective Visual Contrast

Effective visual contrast can be used to improve access to visual information and to clearly define objects in the physical environment. Examples of places where visual contrast improves accessibility:

- Text and backgrounds on printed materials, websites and signs
- Safety features, i.e., marking the edges of pathways and stairs with a contrasting strip of colour
- Colour schemes for rooms and furniture
- Backdrops for display objects
- Borders for labels and text boxes

Note that what constitutes the “best” contrast can vary with the situation and the media. For example, black font on a yellow background is generally considered good for reading. A strong, attention-getting yellow is better for warning signs whereas a pale, subdued yellow is better for lengthy or complicated documents.

### Precise Calculations

A precise measure of visual contrast is difficult to obtain without complicated mathematical equations, especially if colour is involved. The simplest way to get an accurate measure is to use a computer program like a colour contrast analyzer. Analyzers perform all the necessary calculations and some will even indicate if a colour combination works for people with colour-blindness.

There are some excellent colour contrast analyzers available free of charge on the Internet. [Vision Australia](#) and [Hewlett Packard](#) both provide free contrast analyzers on their websites.

### High-Contrast

To create effective contrast without using a computer program or an equation, err on the side of caution by pushing colours to their extremes. White and black are the ultimate extremes; they represent 100 percent contrast. A colour that is so pale or bright that it is almost white will contrast well with a colour that is so dark or saturated that it is almost black. Example: dark, blue-black writing shows up well on a white background. Avoid anything that is similar or mid-range.

Colour combination is very important to contrast. The following chart outlines 13 different colour combinations for fonts and backgrounds. The chart ranges from best to worst. While not exhaustive, it gives you a good idea of what works and what does not.

### Best to Worst Colour Contrast Combinations<sup>13</sup>

	<b>Font Colour</b>	<b>Background</b>	<b>Comments</b>
1.	Black	Yellow	Best Contrast
2.	Green	White	
3.	Blue	White	
4.	White	Blue	
5.	Black	White	
6.	Yellow	Black	
7.	White	Red	
8.	White	Orange	
9.	White	Black	
10.	Red	Yellow	
11.	Green	Red	Avoid
12.	Red	Green	Avoid
13.	Blue	Red	Worst Contrast

### Alternate Access

It may not always be possible to alter the contrast of an item, especially in the case of original items like old documents and photographs. To create accessibility, provide a high-contrast alternative to the original.

Example: an old photograph and letter are difficult to understand because of fading and water damage. The museum produces a line drawing of the photograph and a typed version of the letter, both using high-contrast. The accessible versions are displayed beside the originals.

## Module 6 Endnotes

1. MLA: The Museums, Libraries and Archives Council. "Access for All Self-Assessment Toolkit: Checklist 1, Disability Access for Museums, Libraries and Archives." 8 Jan 2006 [www.mla.gov.uk/documents/disability\\_checklist.pdf](http://www.mla.gov.uk/documents/disability_checklist.pdf)
2. Accessibility Directorate of Ontario, Ministry of Community and Social Services. "A Guide to Annual Accessibility Planning: under the Ontarians with Disabilities Act, 2001." September 2005. 20 Dec 2005 [www.mcass.gov.on.ca/accessibility/documents/AccessibilityPlanningGuide.pdf](http://www.mcass.gov.on.ca/accessibility/documents/AccessibilityPlanningGuide.pdf)
3. MLA: The Museums, Libraries and Archives Council, Supra, Endnote 1.
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7. Accessibility Directorate of Ontario, Ministry of Citizenship. "Planning for Accessible Meetings." April 2002. 19 Dec 2005 [www.mcass.gov.on.ca/mcass/english/pillars/accessibilityOntario/planning/planning\\_information](http://www.mcass.gov.on.ca/mcass/english/pillars/accessibilityOntario/planning/planning_information)
8. Smithsonian Accessibility Program, Office of the Provost. "Smithsonian Guidelines for Accessible Exhibition Design." 8 Jan 2006 [www.si.edu/opa/accessibility/exdesign/start.htm](http://www.si.edu/opa/accessibility/exdesign/start.htm)
9. MLA: The Museums, Libraries and Archives Council, Supra, Endnote 1.
10. MLA: The Museums, Libraries and Archives Council, Supra, Endnote 1.
11. Keller, Steve. "Museum Crowd Control." 1993, 1994. 8 Jan 2006 [www.stevекeller.com/steve/pdf\\_files/SecurityMgt/Crowd%20Control.PDF](http://www.stevекeller.com/steve/pdf_files/SecurityMgt/Crowd%20Control.PDF)
12. Smithsonian Accessibility Program, Office of the Provost, Supra, Endnote 8.
13. Butler, M.J.A., C. LeBlanc, J.A. Belbin, and J.L. MacNeill. "Marine resource mapping: an introductory manual." 1987. 8 Jan 2006 [www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/003/t0390e/t0390e10.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/003/t0390e/t0390e10.htm)

# Alternate Formats

This module provides information on common alternate formats and their uses. In addition, there is information on producing some types of alternate formats.

## Alternatives to Standard Print

The following alternate formats are common alternatives to standard print materials. Except where noted, this information has been adapted from Design for Accessibility: A Cultural Administrator's Handbook<sup>1</sup> and from the Disability Directory for Museums and Galleries.<sup>2</sup>

## Audio Alternative to Standard Print

What is it?

Information presented in an audio format such as:

- Audiocassettes and compact discs
- Random access digital playback
- Assistive Listening Systems (ALS)
- Listening stations

Who does it benefit?

People who are blind or who have vision impairments, people who prefer to listen to information and people who cannot or do not want to carry, manipulate and refer to a text document.

Common Uses:

- Exhibits – accessing information from labels, guidebooks, etc.
- Self-guided tours
- Wherever Braille or Large Print versions would be too lengthy or difficult to carry

Advantages:

- Easy to store and easy for users to access
- Eliminates the need to carry, refer to and manipulate a text

Disadvantages:

- Difficult to scan for information, i.e., hard to pick and choose what you want to hear
- Not useful for complicated tables or charts



#### How to Produce:

Requires no professional training to produce, but the quality of the audio version must match the quality of the standard print item and must be as easy to obtain (availability).

#### Low-Budget Alternative:

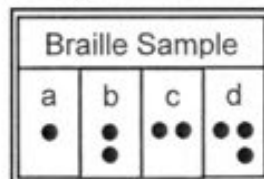
Recruit someone with a good speaking voice, get a microphone and a recording device and make your own audio alternative.

For maximum flexibility, record onto a computer. Many computers come with simple recording software. The computer audio files can be burned onto CDs and played back using a CD Player or an MP3 player. CD and MP3 players are relatively inexpensive, just make sure the technology is accessible and easy to use.

## Braille Alternative to Standard Print

#### What is it?

Information presented in Braille, a system of writing and printing that uses raised dots, read by touch.



#### Who does it benefit?

People who use Braille. Remember: only a percentage of people who are blind or who have vision impairments use Braille.

#### Common Uses:

As an alternative to any standard print item, including labels, texts, signs, the numbers on elevator buttons, etc.

#### How to Produce:

Organizations can produce their own Braille materials if they have the right equipment (i.e., software and a printer called an 'embosser'). There are also companies that produce Braille materials.

#### Reminders:

Errors and printer anomalies reduce the quality of the product. Regardless of who produced the materials, all Braille materials should be proof read by an experienced Braille reader.

The quality of Braille materials must match the quality of the standard print item and must be as easy to obtain (availability).

## **Large Print<sup>3</sup>**

What is it?

Information presented in a printed format that uses a font size of 16 points and larger.

Examples: 16 point, 18 point, 22 point, 24 point

Who does it benefit?

People with low-vision, people who have forgotten their eyeglasses or who have temporary vision impairments.

How to Produce:

Guidelines are included in the Production Guidelines section of this module.

## **Readers**

Who are they?

People who read information aloud.

When are Readers useful?

- To provide a temporary accommodation while an alternate format is in production
- To provide a low-cost alternative to an alternate format (depending on the reader's wage and time spent)
- To provide an alternate format when the need is temporary, i.e., during repairs, for a one week exhibit or for a short meeting

Things to Consider:

Difficulties arise if the material is lengthy. There may also be issues of unequal access if a Reader is not readily available.

How to Provide:

Anyone who can provide a high-quality reading can be a Reader. In some cases an amplification system may be required.

## Audio and Video Descriptions

Audio description has been characterized as the art of describing the visual.<sup>4</sup> Describers present an audio account of purely visual details and information such as:

- body language and facial expression
- gestures and actions
- pictures

Who does it benefit?

People who are blind or who have vision impairments. People without disabilities may also enjoy audio descriptions.

Common Uses:

- Live broadcasts for events, performances, tours and videos
- Pre-recordings for exhibits, museums
- Pre-recorded videos and programs

How to Produce:

Audio descriptions must be performed by professional describers or professionally trained volunteers. Descriptions need to be:

- Objective
- Well-timed to fit between dialogue
- Focused on important details

In addition, descriptions need to avoid qualitative judgements. For example, if a person is smiling a describer wouldn't say 'he looks happy', which is an abstract quality and not very descriptive.

Feedback:

During the production stages seek feedback from people who are blind or who have vision impairments.

## **Assistive Listening Systems (ALS)**

Assistive Listening Systems broadcast audio to targeted receivers. For example, using an ALS, a person can speak into a microphone and have their voice transmitted directly to a person using a listening attachment like a hearing aid with a telecoil feature or a set of earphones.

Who does it benefit?

For people with hearing impairments ALS are especially beneficial. ALS deliver audio directly to the user, whereas hearing aids amplify noise indiscriminately and cannot compensate for background noise or poor sound quality due to distance and acoustics.

Common Uses:

ALS are useful in most areas where speech and audio will be delivered or broadcast, including:

- Classrooms
- Meeting rooms
- Theatres and auditoriums
- Exhibits

They are also useful for providing controlled access to audio components in exhibits.

Types of ALS:

Common types of ALS include FM Systems, Audio/Induction Loops, and Infrared Systems.

Requires:

Listening attachments such as earphones or hearing aids with telecoils.

### **FM Systems<sup>5</sup>**

A microphone or public address system feeds sound into a FM transmitter that transmits to individual FM receivers and hearing aids with telecoils.

Advantages:

- Excellent sound quality
- High portability (allows people to sit where they want)
- Simple and inexpensive installation
- Resistance to electrical interference
- Ability to use several frequencies

Disadvantages:

- Initial expense higher than some other systems
- Limited number of receivers
- Transmits through walls, requiring that different frequencies be used for simultaneous broadcasts in different rooms

## **Audio/Induction Loop<sup>6</sup>**

A microphone or public address system feeds sound into an amplifier that transmits to a physical loop of wire that circles part or all of the room. The loop is located near the ceiling or the floor. The magnetic field inside of the loop can be picked up using earpieces and hearing aids with telecoils.

Advantages:

- Relatively inexpensive, pre-packaged systems are available for small and medium spaces
- Does not require special receivers
- Does require that hearing-aids have telecoils
- Very cost-efficient choice for small areas

Disadvantages:

- Uneven sound quality
- Susceptibility to interference from fluorescent lighting
- Potential for electromagnetic "spill over" in all directions
- User must be in the loop to pick up transmissions
- Installation into large areas needs to be done professionally and can be costly and time-consuming

## **Infrared Systems<sup>7</sup>**

A microphone or public address system feeds sound to a transmitter, which is then carried to a special portable receiver using harmless infrared light beams. The portable receiver is used with earphones or neckloops.

Advantages:

- Good sound quality for people with mild or moderate hearing impairments
- Easy operation
- Not subject to electrical interference
- Maintains confidentiality by not transmitting through walls

Disadvantages:

- Can be interfered with by sun, incandescent and fluorescent light
- Needs receivers to be in the line of sight of the transmitter

## Line Drawings (Non-raised)

Line drawings are simplified pictures intended to aid understanding and help provide visual access.

Who does it benefit?

People who have vision impairments or who may have forgotten their eyeglasses.

Common Uses:

- Large-print guidebooks and materials
  - Aid to understanding large objects
  - Aid to understanding the relationship between different objects
- Example: it may be difficult for a person with a vision impairment to understand a large object, like a sculpture or warplane, because they can only view parts of it at a time. A line drawing allows users to understand the entire object and how different parts fit together.

How to Produce:

Line drawings can be produced by organizations. See the production section of this module.

The level of detail in a line drawing isn't intended to be the same as the object or image it represents. Line drawings are meant to be simple.

## Programmatic Access for Difficult Spaces

Programmatic access is about taking information from inaccessible spaces and presenting it in accessible places. Items, services and information can be moved, travelled or reproduced to create access.

Example: a heritage building has an architecturally interesting room located at the top of a steep set of stairs. The room is captured on video and the video is made available on a website and at interactive computer stations located on an accessible floor of the house.

What is the benefit?

Creates access to information, services and items contained in inaccessible areas.

Common Uses:

- As a temporary measure while accessibility or accommodation is being phased in



- As a permanent solution because other accessibility or accommodation measures would cause undue hardship

#### How to Produce:

Programmatic access requires creative problem solving. Consider the following suggestions:

Multi-Media – use alternate formats, videos, websites and other multi-media to make information available. Present them in accessible areas.

Outreach & Travel – take exhibits, workshops and events to the audience or to a location the audience can easily access. Even moving items into an accessible room on-site can help improve accessibility. See page 12 of this module for more ideas.

Reproductions – create copies and reproductions of items located in difficult areas or items that cannot be handled because of safety or conservation reasons.

## Speech Translators and Interpreters

Speech translators and interpreters are people who render spoken language into sign language or another communication method.

#### Who do they benefit?

People who use sign language or other communication methods.

#### Common Uses:

Many situations where spoken language is used, including:

- Interviews
- Meetings
- Presentations
- Performances
- Workshops
- Tours

#### Requirements:

Speech translators and interpreters need to be qualified or certified. Someone who knows a language or communication method is not necessarily qualified to translate.

What the Interpreter Needs to Know:

- Type of sign language or communication method required
- Length and complexity of the material being interpreted – material that takes longer than 45 minutes or involves more than one speaker (as in a play) may require additional interpreters
- Conditions they will work in – interpreters require good lighting, a good line of sight, and a neutral back drop in order to be effective

## **Tactile Materials and Reproductions**

Tactile materials and reproductions of original items help to create access and enhance experiences for people with and without disabilities. This accessible format is often used to allow people to handle items that otherwise could not be touched. For example, a museum may not want to allow people to touch its valuable quilt collection, but can create access by providing reproduction quilts for handling.

Who does it benefit?

People with various disabilities, including vision, intellectual/developmental and learning disabilities benefit as do people without disabilities.

Common Methods:

- Tactile pictures, maps and diagrams
- Reproductions and models
- Raised line drawings

Commonly Reproduced Items:

- Original objects that cannot be handled for conservation or safety reasons
- Objects with details that are too small to be identified by touch
- Items such as images, pictures, paintings and maps

How to Produce:

See the production section of this module.

# Production Guidelines

This section contains a series of production guidelines for some alternate formats listed in the previous section.

## Standard & Large Print Guidelines<sup>8</sup>

### Layout

- Use one-inch margins
- Align text to the left and leave right margins ragged, not justified
- Books and bound publications should have gutter margins (extra space for binding) that are a minimum of 22mm (7/8 in.) and smaller outside margins, but not less than 13 mm (1/2 in.)
- Books and bound publications should have flexible binding, preferably binding that allows it to lie flat
- Standard print averages a maximum of 50-60 characters per line, or 1525 mm (6 in.) in length
- Large print averages a maximum of 50 characters per line

### Format

- Use simple formatting
- Avoid using large blocks of centred text (more than three lines)
- Do not indent at the beginning of a paragraph
- Avoid columns
- Use dot leaders for tables of contents
- Avoid hyphenation at the end of lines
- Where underlining is used, it should not connect with the base of the words

### Fonts and Typefaces

- The main body text should have a minimum font size of 12 points for standard print, and 16 points for large print
- Use sans-serif or simple serif fonts, like Arial or Times New Roman
- Avoid fancy, italic and script fonts (*italics* and *Script*)
- Where fancy, italic, and script fonts are used, the information should be repeated in oblique type such as standard Arial or Times New Roman
- Avoid unusual line weights and spacing
- Use capitals and lowercases, avoid all-caps or all-lowercase except for titles or decorative purposes
- No broken letters or characters

### Clarity

- Illustrations, graphics, watermarks, patterns or other designs should not be placed behind the text
- Colour contrast between the text and the background should be at least 70%
- Ink coverage should be dense
- Paper should be matte, non-glossy or dull coated to avoid glare
- Paper weight should be sufficient to prevent anything printed on the opposite side from showing through
- Large print materials should be printed on white or off-white paper

### Alternate Formats

- Printed materials should advertise the availability of alternate formats

Note: for information on visual contrast see pages 29-30 in Module 6.

## Line Drawing Guidelines (Non-Raised)<sup>9</sup>

### Half Tones

Avoid the use of half tones. Anything that is not black or white is a half tone, so gray should be avoided. Half tones can be used sparingly where they are necessary to convey information.

### Solid Tones

Always use solid tones. Do not use pen strokes, cross-hatching, contour lines or any other pattern, they will look indistinct to someone with a vision disability.

### Perspective

Do not use perspective; it is a purely visual concept where depth and 3-D proportions are represented on a 2-D surface. In non-raised line drawings perspective will confuse the user.

### Font Size

Text that accompanies line drawings should be a minimum size of 8 points for standard print and 14 points for large print.

### Detail

Non-raised line drawings are intended to be simple and easy to understand. The level of detail in the line drawing should not match the level of detail in the original object.

## Outreach Kits – Tips and Ideas

An outreach kit is an excellent way to make heritage accessible while at the same time raising your public profile and making new or stronger connections with the community.

Outreach kits don't need to be complicated. They can be as simple as producing a small exhibit for a public library, a historical picture display for a shopping mall or modifying a workshop for a specific audience. Kits can be an extension or an adaptation of existing programs, materials and information.

### Making an Outreach Kit

If you already know how to design an exhibit, workshop or event, now is the time to be creative with some accessibility measures. For specific audiences, consult with any other organizations involved. They may have valuable information on the audience's likes, interests, knowledge and skill levels, learning styles and accessibility requirements.

Example: after speaking to the program coordinator at a community centre, the workshop designer discovers that the audience will enjoy the local history workshop much more if they have an extra rest break, lots of hands-on activities and a few pieces of music.

Ask and share. If you have a schedule of activities, sample materials and handouts, or anything else, share it with the person you are consulting with. It can help the person to brainstorm potential issues and enhancements.

The following sample kits have been adapted from ideas provided by The City of Greater Sudbury Heritage Museums' History to Go program. For further information please contact: James Fortin, Curator, City of Greater Sudbury Heritage Museums, P.O. Box 6400, Sudbury, Ontario P3A 3B7  
E-mail: [jim.fortin@city.greatersudbury.on.ca](mailto:jim.fortin@city.greatersudbury.on.ca) and website: [www.sudburymuseums.ca](http://www.sudburymuseums.ca)

### Sample 1 – Visual History

A visual and audio presentation brought to a senior's residence. Large-print materials and artifacts from the museum's collection accompany the presentation. Participants are given the opportunity to handle a variety of suitable artifacts. Participants also have the opportunity to share their memories and experiences with each other and the museum interpreters.

Benefits: takes the collection to a wider audience.

Modified Version: powerful memory triggers like sounds and smells are used when working with people with Alzheimer's.

### **Sample 2 – Hands-on History**

A tactile experience offered to schoolchildren in classrooms and in the museum exhibit space. It is presented by museum staff with knowledge of hands-on learning styles. Participants have an opportunity to interact with artifacts and learn by doing. Examples of activities include making candles, soap or rope, or using a scrub board to scrub clothes.

Benefits: makes information accessible to people who have different learning styles.

Modified Version: simple activities like grinding a nutmeg, coffee bean or cinnamon stick and learning about other work done in pioneer kitchens.

### **Sample 3 – Learning & Exploration**

Kits include magnifying glasses, large-print materials and a variety of items selected to appeal to multiple senses. Students are provided with chunks of 'pure' nickel ore so that they can feel its weight and experiment with its magnetic properties.

Benefits: activities promote learning while appealing to multiple senses.

Modified Version: communication kit with examples of sign language to help students learn and understand fellow classmates.

## **Tactile Materials – General Guidelines<sup>10</sup>**

### **Purpose**

Materials should be clear and easy for the user to understand. The two main purposes of tactile materials are:

- Interpretation – representations of drawings, pictures, maps, etc.
  - Orientation – guides and maps for wayfinding
- Example: users need to be able to tell if a tactile map is a reproduction of a historic map on display or a guide to moving through the exhibit.

### **Timing**

Tactile materials take more time to understand than visual materials, especially if the user is unfamiliar with the approach. This needs to be taken into account when calculating the amount of time people will spend in an exhibit space or using tactile materials in a workshop or presentation.

### **Accessibility**

Tactile materials need to be readily available (easy to obtain) and available to all users, including people without disabilities.

## Production

The production of tactile materials should involve consultations with people with disabilities.

## **Tactile Materials – Design Principles<sup>11</sup>**

### Clarity

Materials need to be as clear and easy to understand as possible. Be concise and keep the user's point of view in mind

### Detail

Use only important facts, details and pieces of information. Do not include anything that is not necessary to understanding or conveying important information.

### Simplify

If shapes or textures are not necessary to convey information or a concept, try replacing them with simple geometric shapes, Braille signs or other symbols.

### Knowledge Level

Use age-appropriate language and design with the knowledge level and skill base of the audience in mind.

### Technical Accuracy

Determine if it is important for the tactile material to be technically accurate. Scale, angle, length and distance may be important for something like a map (orientation), but unimportant for something like a picture (interpretation).

### Layout

Do not clutter or overload the materials with irrelevant information, as it will make the materials difficult to understand.

### Editing

Tactile materials should be tested by touch, not by sight. Consultations with people with disabilities are highly recommended.



## Tactile Materials – Technical Considerations<sup>12</sup>

### Lines

Lines should be raised. The width of the raised line should be the same as the width of the original drawn line.

### Raised and Unraised Surfaces

Raise the areas that convey the most information. If the image has an abundance of blank or negative space, then consider raising the blank or white space and leaving the dark areas and details flat.

Example: a tactile picture of a skull will be much easier to interpret if the white of the bone is raised and the black of the eye sockets, nose, and mouth remain flat.

### Texture

In addition to raised and flat areas, one texture can be used.

- Avoid using more than one texture
- Provide contrast between textures to make it easier to distinguish between elements
- Ensure that the textures are clearly discernible by touch, as some textures that look different may not feel different
- Surround the textured area with a continuous line, leaving a small amount of space between line and texture
- Use a verbal description to describe the texture, giving it a name according to how it feels

### Point of Reference

Choose a consistent method to allow users to orient materials, especially maps. A point of reference can be added by physically notching the frame or top right-hand corner of a tactile picture or diagram, or by using a feature that naturally stands out like the legend or the key to a map.

### Emphasis

To create emphasis, use lines to draw attention to an area. Thick or thin, dotted, broken or doubled lines can be used to create emphasis.

### Perspective

Do not use perspective; it is a purely visual concept where depth and 3-D proportions are represented on a 2-D surface. In tactile materials perspective will confuse the user.

When working from pictures, sculptures, or other objects, choose a single view, such as a front or side or a  $\frac{3}{4}$  angle if it provides more interesting detail.

### High-Detail

Tactile materials generally need to be simple to be understood. For complex objects, pictures, etc., produce a simple overall drawing and accompany it with a series of detail drawings. Relate the detail drawings to the overall drawing using labels or verbal descriptions. Representations can also be split into sections and put on their own pages.

### 3-D Objects

In cases where a three dimensional object cannot be touched, consider creating a tactile drawing for each angle to convey the overall shape and some detail.

### Verbal Description

Include descriptions in accessible formats to help users understand the tactile materials.

## General Design of Websites and Software

It is important for websites and computer software to be accessible. In addition to testing and maintaining an accessible website, organizations should have a policy of evaluating software for accessibility before purchase and before approving the design of custom software. See also Guidelines for Screen Reading Software page 18 of this module.

### Captioning and Transcripts<sup>13</sup>

Captioning of video and audio is almost non-existent on the Internet, making information inaccessible to people who are deaf or who have hearing impairments.

Solution: provide synchronous captioning or transcripts for audio and video clips. If a video has no audio component, inform the audience with a written statement so that people are aware that they are not being deprived of information.

### Colour-Coded Information<sup>14</sup>

Depending on the colour combinations, colour-coded information may be inaccessible to people with colour-blindness. Example: an online bus map where the routes are marked by coloured lines may be difficult or impossible for a person with colour-blindness to use.

Solution: Do not use colour coding. Where colour coding must be used be sure to provide an alternate means of accessing the information such as a text explanation.

#### Default Colours<sup>15</sup>

People with low-vision often benefit from high contrast settings or special colour combinations. If a website or program has fixed colour combinations, or text embedded in graphics or a graphic for a background, then the user cannot change the contrast or colours to improve legibility.

Solution: use real fonts and real backgrounds instead of text within graphics and graphics as backgrounds.

#### Layout and Relative Units<sup>16</sup>

People with low-vision often use screen-magnification software. Using relative units (percentages) rather than absolute units (a specific width and height) reduces the amount of scrolling required when the screen is magnified.

Solution: use relative units, like percentages, to design websites. Purchase software that magnifies easily.

#### Lengthy Content<sup>17</sup>

Some adaptive technologies require a physical effort that can fatigue a user. Long lists and lengthy content can be problematic for such users.

Solution: give users the option of skipping over long lists and lengthy content.

#### Link Size and Stability<sup>18</sup>

Some users may not be able to control a mouse or keyboard with great precision. Items that are difficult to select or pinpoint may be impossible for people to access.

Solution: do not make links small and do not give them motion.

#### Manageable Amounts of Information<sup>19</sup>

Users may have difficulty focusing on and understanding large or lengthy amounts of text.

Solution: organize information in logical, manageable groups with appropriate headings.

#### Mouse Only Access<sup>20</sup>

People who are blind and use a screen reader or who cannot manipulate a mouse often use a keyboard instead. Elements that can only be triggered using the point-and-click interface of a mouse are inaccessible to keyboard users.

Solution: design websites and purchase software that provides keyboard alternatives.

### Navigation & Layout<sup>21</sup>

Complicated and inconsistent layouts and navigational schemes are confusing to users.

Solution: make the layout of websites consistent and simple and choose software that is easy and intuitive to use.

### Supplemental Information<sup>22</sup>

Some users may have difficulty understanding information that is provided in a single format, i.e., a lengthy and complicated text document.

Solution: provide supplemental text, illustrations and other media to aid understanding. This may be especially important where users are expected to provide input, like filling out a form.

### Text Embedded in Graphics<sup>23</sup>

People with low-vision often use screen-magnification software. True text enlarges very well, but text that is embedded in a graphic (i.e., part of a picture) becomes blocky and difficult to read when enlarged.

Solution: do not put text within graphics, use true text and real fonts.

### Tolerance for Error<sup>24</sup>

People may accidentally select options they do not want, especially if they cannot control a mouse or keyboard with great precision.

Solution: create error-tolerant websites and purchase software that provides warnings and options when users make important decisions. Example: Microsoft Word prompts users to save their files before closing the program.

## **Guidelines for Screen Reading Software<sup>25</sup>**

Screen readers are software programs that synthesize speech and enable navigation of websites and programs. Screen readers read content in a linear fashion (line by line, left to right) and therefore require accessible content and an accessible layout to be effective.

### Alternative Text ('Alt' Text)

In order to 'read' an image a screen reader requires a text alternative.

Solution: provide 'alt' text for all images, graphics and photos. 'Alt' text should be a very short description of the image. Longer descriptions may be provided elsewhere on the page or via hyperlink.

### Clearly Defined Links

When users move from link to link they may not know the context of the new page or the purpose of the next link. If links are not clearly defined, confusion may result.

Solution: make the purpose of all links clear, so that they can be understood out of context. For example, 'Click for Staff Contacts' is better than 'Staff' or 'Click Here.'

### Frames

People using a screen reader must access each frame separately. Information in one frame cannot be easily referenced or linked to information in another frame. This can have a disorienting effect.

Solution: avoid using frames. Where frames are used, be sure to communicate their purpose through clear titles.

### Image Maps

Not all screen readers are capable of supporting image maps.

Solution: provide text links for 'hot spots' in image maps.

### Skipping Content

Screen readers read in a linear fashion, from left to right. Content such as navigational menus, long lists or ASCII art may cause frustration to users who do not want to read them and cannot quickly skip over them.

Solution: give users the option to skip content.

### Summaries

Tables, graphs and other visually complicated items may be difficult or impossible to understand using a screen reader.

Solution: provide summaries, explanations and interpretations of visually complex material.

### Tables

It can be difficult for someone using a screen reader to understand how information in the different cells of a table relates to each other, especially if the table does not have headers.

Solution: make sure that all tables have column heads and that they read logically from left to right.

## Visual Information

Visual information such as colours and shapes do not have any meaning for screen readers. For example, instructions to "click on the red circle" are not accessible to a screen reader user.

Solution: do not use visual information alone to convey information. Always provide text alternatives and clearly defined links.

## Website Testing

There are many companies that specialize in bringing websites up to accessible standards or that sell software that can maintain a website's accessibility. In addition, most of these companies allow organizations to test a few sample pages of their website free of charge.

If you would like to experience the difficulties that an inaccessible website can pose, and for various simulations, visit WebAIM at: [www.webaim.org/simulations/](http://www.webaim.org/simulations/)

## Module 7 Endnotes

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8. Smithsonian Accessibility Program, Office of the Provost, Supra, Endnote 3.



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## **Additional Information, Resources and Bibliography**

This module provides additional information on a variety of topics, a list of Web and print resources on disability and accessibility relevant to heritage organizations and a bibliography of the sources used in the preparation of this document.

### **Principles of Accommodation**

#### **Dignity**

Accommodation and accessibility must be provided to persons in a manner that most respects their dignity, including their privacy, confidentiality, comfort, and autonomy.

Accommodation and accessibility measures that result in embarrassment, discomfort, inconvenience or unequal access are unlikely to be considered appropriate.

#### **Inclusion**

Accommodation and accessibility must be provided to persons in a manner that achieves integration and full participation through barrier-free and inclusive designs and the removal of existing barriers.

Preventing and removing barriers means all persons should be able to access their environment and face the same duties and requirements with dignity and without impediment.

#### **Individualization**

There is no set formula for accommodation. Each person's needs are unique and must be considered afresh when an accommodation request is made.

A solution may meet one person's requirements but not another's, although many accommodations will benefit large numbers of persons with similar needs.

## **Quick Reference: The Principles of Universal Design**

1. **Equitable Use:** The design is useful and marketable to people with diverse abilities.
2. **Flexibility in Use:** The design accommodates a wide range of individual preferences and abilities.
3. **Simple and Intuitive:** Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
4. **Perceptible Information:** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
5. **Tolerance for Error:** The design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. **Low Physical Effort:** The design can be used efficiently and comfortably and with a minimum of fatigue.
7. **Size and Space for Approach and Use:** Appropriate size and space is provided for approach, reach, manipulation and use regardless of user's body size, posture or mobility.

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## **The Principles of Universal Design with Guidelines** **Principles of Universal Design, Version 2.0 – 4/1/97<sup>1</sup>**

1. **Equitable Use**  
The design is useful and marketable to people with diverse abilities.  
  
Guidelines:
  - 1a. Provide the same means of use for all users: identical whenever possible, equivalent when not.
  - 1b. Avoid segregating or stigmatizing any users.
  - 1c. Provisions for privacy, security, and safety should be equally available to all users.
  - 1d. Make the design appealing to all users.

2. Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

Guidelines:

- 2a. Provide choice in methods of use.
- 2b. Accommodate right- or left-handed access and use.
- 2c. Facilitate the user's accuracy and precision.
- 2d. Provide adaptability to the user's pace.

3. Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Guidelines:

- 3a. Eliminate unnecessary complexity.
- 3b. Be consistent with user expectations and intuition.
- 3c. Accommodate a wide range of literacy and language skills.
- 3d. Arrange information consistent with its importance.
- 3e. Provide effective prompting and feedback during and after task completion.

4. Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Guidelines:

- 4a. Use different modes (pictorial, verbal, tactile) for presentation of essential information.
- 4b. Provide adequate contrast between essential information and its surroundings.
- 4c. Maximize "legibility" of essential information.
- 4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- 4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

5. Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Guidelines:

- 5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
- 5b. Provide warnings of hazards and errors.
- 5c. Provide fail-safe features.
- 5d. Discourage unconscious action in tasks that require vigilance.

6. Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Guidelines:

- 6a. Allow user to maintain a neutral body position.
- 6b. Use reasonable operating forces.
- 6c. Minimize repetitive actions.
- 6d. Minimize sustained physical effort.

7. Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Guidelines:

- 7a. Provide a clear line of sight to important elements for any seated or standing user.
- 7b. Make reaching to all components comfortable for any seated or standing user.
- 7c. Accommodate variations in hand and grip size.
- 7d. Provide adequate space for the use of assistive devices or personal assistance.

Please note that the Principles of Universal Design address only universally usable design, while the practice of design involves more than consideration for usability. Designers must also incorporate other considerations such as economic, engineering, cultural, gender, and environmental concerns in their design processes. These Principles offer designers guidance to better integrate features that meet the needs of as many users as possible.

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## Duty to Accommodate and Undue Hardship

Under the Ontario Human Rights Code and the Canadian Human Rights Act, there is a duty to accommodate persons with disabilities short of undue hardship. For the most part, the duty to accommodate applies to heritage organizations in their capacity as service providers and employers (includes volunteers).

To be considered appropriate and to meet human rights obligations, accommodations need to be dignified, inclusive and individualized. People with disabilities must be accommodated unless undue hardship will result.

In Ontario, calculations for undue hardship are based on cost, health and safety, and the availability of other sources of funding. Undue hardship can be used as a defense against providing an accommodation, but generally speaking it is easier and less expensive to accommodate persons than it is to prove that persons cannot be accommodated, especially considering that many accommodations are very inexpensive. In its Policies and Guidelines on Disability and the Duty to Accommodate, the Ontario Human Rights Commission notes the following:

- No organization is expected to incur undue hardship.
- Hardship must be 'undue' in order to qualify as a reason for not providing an accommodation.
- Alternatives must be explored.
- If a human rights complaint is filed then the burden of proof is the responsibility of the organization being complained against.

Undue hardship must be calculated using:

- Objective, quantifiable evidence related to the accommodation in question, no assumptions or opinions will be considered.
- The ability of the organization in question to provide the accommodation, and if there is a parent organization then the parent organization's ability to provide the accommodation will be used.

For more detailed information about accommodation and undue hardship, please contact the Ontario Human Rights Commission or the Canadian Human Rights Commission.

## Resources and Information

### Accommodation and Accessibility

- The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)  
[www.elaws.gov.on.ca/DBLaws/Statutes/English/05a11\\_e.htm](http://www.elaws.gov.on.ca/DBLaws/Statutes/English/05a11_e.htm)  
[www.mcsc.gov.on.ca/mcsc/english/pillars/accessibilityOntario/](http://www.mcsc.gov.on.ca/mcsc/english/pillars/accessibilityOntario/)
- The Ontario Human Rights Code  
[www.ohrc.on.ca/english/code/index.shtml](http://www.ohrc.on.ca/english/code/index.shtml)
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[www.obc.mah.gov.on.ca/scripts/index\\_.asp](http://www.obc.mah.gov.on.ca/scripts/index_.asp)
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[www.elaws.gov.on.ca/DBLaws/Statutes/English/01o32\\_e.htm](http://www.elaws.gov.on.ca/DBLaws/Statutes/English/01o32_e.htm)

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"A Guide to Annual Accessibility Planning under the Ontarians with Disabilities Act, 2001." September 2005.

[www.mcsc.gov.on.ca/accessibility/en/ontario/accessibleplanningguide.htm](http://www.mcsc.gov.on.ca/accessibility/en/ontario/accessibleplanningguide.htm)

A Step by Step Guide to Accessible Arts in California: [www.cac.ca.gov/61/](http://www.cac.ca.gov/61/)

A way with Words:

[www.hrsdc.gc.ca/en/hip/odi/documents/wayWithWords/00\\_toc.shtml](http://www.hrsdc.gc.ca/en/hip/odi/documents/wayWithWords/00_toc.shtml)

Access All Areas: guidelines for marketing the arts to people with disabilities:

[www.ozco.gov.au/arts\\_resources/publications/access\\_all\\_areas/](http://www.ozco.gov.au/arts_resources/publications/access_all_areas/)

AccessON – Breaking Barriers Together: [www.accesson.ca](http://www.accesson.ca)

Adaptive Technology Resource Centre at the University of Toronto

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## **Conclusion**

The Ontario Historical Society (OHS) hopes that you have found this Tool Kit useful as you make plans for your organization or institution to be more accessible and inclusive in the future.

The OHS realizes that this Tool Kit is just a beginning and that much more information will become available. Watch for other ideas, recommendations and concepts to assist you in serving the public and making Ontario's history and heritage accessible to everyone. Add this new material to your binder and exchange it with your colleagues and with the OHS.

The Society is committed to making Ontario's heritage more accessible and invites the heritage community and all those concerned about accessibility to share resources and practical and innovative solutions to reduce barriers. If you have questions, comments, suggestions, ideas or new information please do not hesitate to contact the Society:

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Help us and others with your success stories. We invite you to share your challenges, experiences and knowledge of improving accessibility to Ontario's history by registering with our online accessibility forum at: [www.ontariohistoricalsociety.ca/accessibleheritage](http://www.ontariohistoricalsociety.ca/accessibleheritage)