

# Copyright

Blind Low Vision NZ hopes that by sharing this resource, the built and digital environment will become more accessible for people who are blind, deafblind or have low vision. When referring to, or sharing this resource, please use the following reference:

Blind Low Vision NZ “*Clearing Our Way*” Guide. Published July 2021. Available to download from the [Blind Low Vision NZ website.](https://blindlowvision.org.nz/information/clearing-our-way-guide/)

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# About

In 2020, the Canadian National Institute for the Blind (CNIB) Foundation gave permission for Blind Low Vision NZ (BLVNZ) to adapt their “Clearing Our Path” resource for the New Zealand context. Our hope is that by sharing this expertise, the built environment and digital spaces will become more accessible for people who are blind, deafblind or have low vision.

The purpose of this resource is to encourage people involved in design to think before they proceed with plans because it is far more cost effective to build in accessibility in the planning stage.

While this document is based on best practice, it is important to remember that everyone is an individual. As such, this is a living document, and Blind Low Vision NZ will endeavour to keep this resource updated.

We’d love to hear what you think. Let us know by calling BLVNZ on 0800 24 33 33 or emailing [communications@blindlowvision.org.nz](mailto:communications@blindlowvision.org.nz).

BLVNZ is committed to advocating for accessible environments for people who are blind, deafblind or have low vision. Equal rights for all disabled New Zealanders are enshrined in the New Zealand Human Rights Act 1993, the New Zealand Bill of Rights Act 1990, and echoed in the United Nations Charter on the Rights of Persons with Disabilities (UNCRPD). Governments, both in New Zealand and around the world, are passing ground-breaking accessibility and disability rights legislation. Additionally, we are reaching new levels of societal awareness. We believe that public services and digital spaces that are not accessible to people with disabilities cannot be accurately described as “public.”

Architectural design should incorporate elements that facilitate the safe and independent use of the built environment. There are many simple and inexpensive ways to deliver accessible environments for people who are blind, deafblind or have low vision. These solutions can be designed to be aesthetically pleasing as well as to make environments accessible, and more usable. Implementing these solutions mainly requires the application of simple techniques to make information about an environment available in an accessible way. To read more about [the seven principles behind universal design](https://projects.ncsu.edu/ncsu/design/cud/about_ud/udprinciplestext.htm), please visit the University of North Carolina’s Centre for Universal Design.

Equally important is the accessibility of digital information. Virtually all types of information and services are now provided digitally. As with any other user groups, it is important for people with disabilities, including people who are blind, deafblind or have low vision to be able to access and use digital information.

The design recommendations presented in this resource focus primarily on the needs of people who are blind, deafblind or have low vision. People who are deafblind experience even greater barriers to travelling independently and accessing built environments and information. There is great diversity within the deafblind population. Some people are born deaf and later become blind, and vice versa. There are very few people who are totally deafblind, and often there is some sensory ability in one or both of the senses.

While some technical requirements also address various design needs of people with other disabilities, it is important to note that “Clearing Our Way” guide is not intended as a resource to comprehensively address the accessibility needs of all disabled people.

It is also important to note that individual local councils and regional councils may have by-laws which address some of the same technical requirements presented within this resource. Where such by-laws exist, architects and other designers are encouraged to choose the design requirements that maximise accessibility for people who are blind, deafblind or have low vision. Design requirements should always at least meet central government legislated requirements of the local territorial authorities.

# Acknowledgements

Blind Low Vision NZ gratefully acknowledges the advice and assistance of many individuals who have generously contributed their time and expertise to this resource.

* Jelena Zidov, Senior Policy Analyst, Blind Low Vision NZ
* Chris Orr, Access and Awareness Advisor, Blind Low Vision NZ
* Kate Kerr, Rehabilitation Instructor, Visionary Rehabilitation Services
* Rhonda Comins, Lived experience advisor
* Ari Kerrsen, Lived experience advisor
* Thomas Coysh, Lived experience advisor
* Access Advisors
* Ian Wilson, Photographer

# [Emergency Exits and Safety](http://clearingourpath.com/6.0.0-safety_e.php)

Keep in mind that building design and construction are only part of the answer in terms of meeting the needs of people who are blind, deafblind or have low vision in emergency planning. Staff training programs and maintenance schedules also play a critical role.

Further information on elements that are common to both exterior and interior environments is provided in Exteriors and Interiors in the “Design Needs” Section.

This advice builds on what is prescribed in sections F6 and F7 of the [New Zealand Building Code Handbook](https://www.building.govt.nz/building-code-compliance/building-code-and-handbooks/building-code-handbook/).

Refer to [Access Standard NZS 4121:2001](https://www.building.govt.nz/building-code-compliance/d-access/d1-access-routes/public-accommodation-access/access-standard-nzs-41212001/) for further advice on fire safety and other emergency requirements.

In this section:

* [Emergency exits](#_4.1_Emergency_Exits)
* [Emergency alarms](#_4.2_Emergency_Alarms)
* [Meeting points](#_4.4_Meeting_Points)
* [Emergency procedures](#_4.5_Emergency_Procedures)

## **Emergency Exits**

It may take someone who is blind, deafblind or has low vision more time to locate an exit and get there unassisted. Emergency exits should be logically located (e.g., at the ends of corridors) along a simple path of travel. Use tactile, audible, colour and visual design features to attract attention to the location of the exit path.

Everyone should participate in regularly scheduled fire drills, particularly people who are blind, deafblind or have low vision. These exercises provide an opportunity for everyone to become familiar with the location of emergency exits and the procedures to follow if there is an emergency.

In this section:

* [Interior Routes](#_4.1.1_Interior_Routes)
* [Exit Doors and Hardware](#_4.1.2_Exit_Doors)
* [Emergency Exit Signage](#_4.1.3_Emergency_Exit)
* [Exterior Exit Routes](#_4.1.4_Exterior_Exit)

### **Interior Routes**

There should be an unobstructed clear and accessible path of travel to an emergency exit that provides sufficient space for people who are blind, deafblind or have low vision walking with a sighted guide or guide dog during evacuation procedures.

All interior routes to emergency exits should be properly lit and clearly identified on the life safety plan for a building. These plans should be made available in alternative formats or provided in accessible alternative format documents.

### **Exit Doors and Hardware**

Exit doors on each floor should be clearly labelled with proper signage. The doors should open out in the direction of exit to avoid hitting a person with vision loss. As with any door in a public space, emergency doors should never hinge so that they open into the path of travel.

Thresholds on exit doors should comply with the requirements specified in the section on Exterior Doors. Thresholds should contrast in colour and brightness to their surroundings. Use tactile or textured flooring where possible to mark emergency exits so that the exits can be easily identified.

Double doors that are an emergency exit should not have centre posts, except when centre posts are required by building codes to create and maintain smoke and flame barriers in a building.

Further information on door requirements is provided in the section on Exterior Doors.

### **Emergency Exit Signage**

Illuminated exit signage should be used to assist wayfinding, especially where an exit route changes direction or joins another route. All print and tactile signage used to direct people to exit points should be located at exit route junctions and exit points as needed.

Emergency exit signage should be located on the right-hand side of an exit route.

When emergency signage is placed in proximity to a corner, the signage should be located consistent distance from the wall junction.

### **Exterior Exit Routes**

The route away from a building should be a clear and accessible path of travel. Exit routes should be configured to ensure that everyone can quickly and safely clear the building. Routes should not require people to pass close to windows or traverse along the immediate perimeter of the building. Where exit routes require travel across landscaped areas, pedestrian paths should be of firm construction, with gradients complying with the requirements for accessible routes. These routes must be maintained clear of obstructions, such as vegetation growth.

Exterior routes from the building should incorporate tactile and colour-contrasted walking surfaces for easier identification. Exterior emergency routes should be clearly identified on the emergency procedure for the building and routinely practiced by all building occupants.

## **Emergency Alarms**

Refer to [NZS 4512:2010](https://www.standards.govt.nz/shop/nzs-45122010/) which provides up-to-date specifications for the design, manufacture, installation and maintenance of fire detection and alarm systems.

To ensure that people with vision or hearing loss are alerted to an alarm, both auditory and visual signals should be used in an alarm system, regardless of whether it’s a single-stage or two-stage system. This is particularly important as more and more people wear ear buds and other headphones in buildings.

In residential settings, the installation of vibrating alarm-signalling devices should be implemented where residents who are both deaf and blind reside. Typically, these systems are configured with a bed vibrator that activates if the building alarm system or a smoke alarm system within a dwelling unit is triggered. During waking hours, other warning systems should be provided.

## **Meeting Points**

As part of emergency procedures, the location of meeting points should be described in public address announcements during an emergency situation.

## **Emergency Procedures**

Emergency procedures set out how building occupants will be alerted to an emergency situation and evacuated from a building or public space. It is specific to a particular location and it must address the needs of everyone who uses or may use the space or building.

When developing emergency procedures, consider the needs of people who are blind, deafblind or have low vision. All people who are blind, deafblind or have low vision and are working in a new space within a building should be informed about the location of emergency exits and practice identifying them on their first day.

Emergency procedures should be made available in alternative formats such as accessible electronic documents including audio, large-print or braille. These documents should be updated as often as necessary to ensure that documents in alternative formats are current with the print versions of the life safety plan.

For commercial tenants, the alternative format materials should be made available to people who are blind, deafblind or have low vision immediately upon joining an organisation. In residential settings, these documents should be made available with tenant agreements.

Building attendants, security guards, reception staff and event hosts should receive regular training on how best to assist blind people in an emergency.

Instructions about the location of emergency exits should be part of the routine when greeting blind people who are visiting a facility or attending a meeting in it.

Fire wardens in a building should be provided with training on how to inform people who are deafblind of an emergency. Each warden should receive training on how to act as a sighted guide for a blind person.

Emergency procedures for public buildings should include the following documents, which should be available by request in print, braille, audio and electronic text formats:

* A description of emergency procedures, including considerations for people who are blind, deafblind or have low vision who are regularly in the building.
* A description of the responsibilities of building staff and other occupants of the building in an emergency situation, including specific instructions on how to assist people who are blind, deafblind or have low vision.
* A copy of applicable fire safety regulations.

Emergency procedures should be supported by these activities:

* Distribution of relevant parts of the life safety plan to all occupants of the building in alternative formats.
* Training of fire wardens on how to assist in evacuation of the building and how to act as a sighted guide for building occupants who are blind, deafblind or have low vision.
* Posting of evacuation procedure signage on each floor in print, tactile and braille formats.
* Regular checking and maintenance of emergency systems, including alarm systems, emergency lighting, emergency communications systems and obstruction-free evacuation routes.
* Regular review of emergency procedures through the use of practice drills.
* Provision of orientation and mobility training around emergency exits for building occupants who are blind, deafblind or have low vision on a routine basis.

A photo demonstrating emergency procedures available in print, large print and braille. Photo: Blind Low Vision NZ.


A photo demonstrating emergency procedures available in print, large print and braille. Photo: Blind Low Vision NZ.

# Resources

[New Zealand Building Act 2004](https://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html)

[New Zealand Building Code](https://www.building.govt.nz/building-code-compliance/)

[New Zealand Building Code Handbook](https://www.building.govt.nz/building-code-compliance/building-code-and-handbooks/building-code-handbook/)

[Access Standard NZS 4121:2001](https://www.building.govt.nz/building-code-compliance/d-access/d1-access-routes/public-accommodation-access/access-standard-nzs-41212001/)

[Waka Kotahi – New Zealand Transport Agency (Waka Kotahi) Pedestrian planning and design guide](https://www.nzta.govt.nz/resources/pedestrian-planning-guide/)

[Waka Kotahi Requirements for urban buses in New Zealand (the 'RUB')](file:///\\rnzfb.org.nz\dfs\SharedData\Policy%20and%20Advocacy\Clearing%20Our%20Path%20(CNIB)\Requirements%20for%20urban%20buses%20in%20New%20Zealand%20(the%20'RUB'))

[The Accessibility Charter: A commitment to accessible information](https://msd.govt.nz/about-msd-and-our-work/work-programmes/accessibility/index.html), [New Zealand Government Digital Standards & Guidance](https://www.digital.govt.nz/standards-and-guidance/)

[Web Content Accessibility Guidelines (WCAG)](https://www.w3.org/WAI/standards-guidelines/)

[Auckland Transport (AT) Transport Design Manual](https://at.govt.nz/about-us/manuals-guidelines/transport-design-manual/)

[Waka Kotahi RTS 14 - Guidelines for facilities for blind and vision impaired pedestrians](https://www.nzta.govt.nz/resources/tan15-06/)

[Auckland Council – Auckland Design Manual](http://www.aucklanddesignmanual.co.nz/), and in particular the [Universal Design Guide](http://www.aucklanddesignmanual.co.nz/design-subjects/universal_design/checklists) and [Auckland Council Universal Design Tool](http://universaldesigntool.co.nz/)

[Blind Low Vision NZ Accessible Signage Guidelines: Braille, Tactile and Clear Print Fifth Edition (2018](https://blindlowvision.org.nz/how-we-can-help/businesses-and-professionals/accessible-signage-and-buildings/))

[Auckland Transport’s Transport Design Manual](https://at.govt.nz/about-us/manuals-guidelines/transport-design-manual/#section3)

**Standards available for purchase**

[AS/NZS 1428.4.1: 2009](https://www.standards.govt.nz/shop/asnzs-1428-4-12009/) - Design for access and mobility - Part 4.1: Means to assist the orientation of people with vision impairment - Tactile ground surface indicators

[AS/NZS 1428.1: 2009](https://codehub.building.govt.nz/resources/as-1428-1-2009/) - AS 1428.1-2009 Design for access and mobility - Part 1: General requirements for access - New building work

[ISO 7001:2007](https://www.iso.org/standard/41081.html) - Graphical symbols — Public information symbols

[AS 2353: 2018](https://www.standards.org.au/standards-catalogue/sa-snz/other/lg-006/as--2353-colon-2018) - Pedestrian push-button assemblies

[NZS 5828:2015](https://www.standards.govt.nz/shop/NZS-58282015) Playground Safety Standards

**Other organisations**

[Braille Authority of New Zealand Aotearoa Trust (BANZAT)](http://www.banzat.org.nz/)

To read more about [the seven principles behind universal design](https://projects.ncsu.edu/ncsu/design/cud/about_ud/udprinciplestext.htm), please visit the University of North Carolina’s Centre for Universal Design

Video resource - [A bit of a project - walking in a car-oriented city](https://www.youtube.com/watch?v=xlhG76CHWBc). Aucklanders talk about walking, and the difficulties they encounter. Video created by Dmitry Konovalov, based on research done by Tamara Bozovic, Professor Erica Hinckson, Associate Professor Melody Smith and Dr Tom Stewart. At 3:23 Lenny talks about his experience as a blind person trying to cross Church Road in Mangere, Auckland.

# Contact Us

We’d love to hear what you think. Let us know by calling BLVNZ on 0800 24 33 33 or emailing [communications@blindlowvision.org.nz](mailto:communications@blindlowvision.org.nz).