

Accessible mobility to and within nature areas

MONA-meeting 30 september 2026, Arnhem



Introduction

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Pieterpad HOME PIETERPAD NIEUWS ETAPPES PIETERFIETSPAD ACCOMMODATIES WINKEL VRIENDEN VAN CONTACT

DE PIETERPAD ROLSTOELROUTE: TOEGANKELIJKE NATUURBELEVING ZONDER GRENZEN.

De bekendste lange-afstand wandelroute van Nederland kun je nu ook met je rolstoel afleggen. De route is geschikt voor all-terrain hulpmiddelen en rolstoelgebruikers die de vaardigheden hebben om daarmee om te gaan. De rolstoelroute maakt voor ca. 85% gebruik van de normale Pieterpad wandelroute. Voor ontoegankelijke routedelen zijn voor de rolstoelgebruikers alternatieve trajecten gemaakt.

Moeilijkheidsgraden en hulpmiddelen

Op de kaart op deze pagina hebben de verschillende etappen een kleur en een symbool.



@alzheimer nederland

CROW

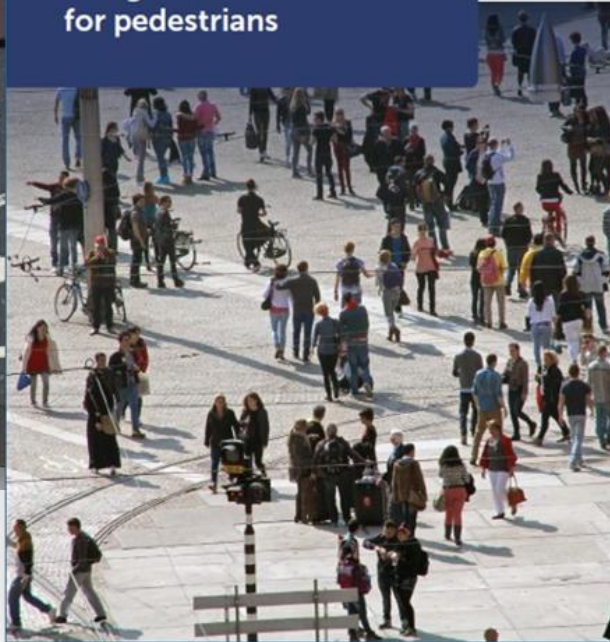
fietsberaad
CROW

Design Manual for Bicycle Traffic



kennisplatform
CROW

Design manual for pedestrians



- CROW is a foundation focused on developing and sharing practical knowledge for infrastructure, public space, traffic, and mobility.
- CROW offers guidelines, manuals, and courses that can be directly applied in practice

To start with...



- <https://www.youtube.com/watch?v=9s3NZaLhcc4>

Medical and social model

old

Medical model

People with disabilities **deviate from** the norm of how **most people** are. Disability should be **minimised** by doctors, healthcare professionals and other experts.

new

Social model

People with disabilities are, like everyone else, **a variation of humanity**. Behaviour and the environment should be developed so that as many people as possible **can participate**.

UN disability convention



**Verdrag inzake de rechten
van personen met een handicap**

- UN Convention on the Rights of Persons with Disabilities
- protecting the rights and dignity of people with disabilities or impairments
- came into effect on May 3, 2008
- The Netherlands ratified it on June 14, 2016

Different groups

Group with a limitation	Group size
People with visual impairments	Approximately 220,000 people with low vision, 750,000 people with colour blindness, and around 76,000 people who are completely blind (CROW, 2021)
People with hearing impairments	Approximately 1.5 million people with hearing loss (CROW, 2021)
People with motor impairments	Approximately 1.75 million people with a motor impairment. Of these, around 472,000 people have a severe motor impairment (CROW, 2021)
People with cognitive and intellectual impairments	Approximately 68,000 people with a mild intellectual disability (CROW, 2021)
People with dyslexia and low literacy	Approximately 850,000 people with dyslexia and 2.5 million people with low literacy skills (CROW, 2021)
Children	Just over 2.1 million children under the age of 12 in 2022 (CBS, 2022)

A small exercise...

Choose a person to put yourself in with the person next to you



- Someone with a physical disability
- Someone with a visual impairment
- Someone with dementia
- A child

Measures for people with a disability	Visual impairment	Hearing impairment	Motor impairment	Cognitive impairment	Dyslexia and low literacy	Children
Alternative, less complex route						
Increased contrast (material, colour, shape and size)						
Guidance and tactile paving						
Recognition points for guide dogs						
Avoid level differences						
Information at different heights						
Short (phased) crossing lengths						
Crossing point marking						
Natural landmarks						
Obstacle-free walking route						
Pictograms						
Quiet environment						
Safe spaces						
Tactile function						
Lighting						
Sufficient walking space						
Sightlines						

Guidelines for accessibility

Accessible mobility to and within nature areas

Not just: can I use the path?

But: can I arrive, transfer, navigate, travel and reach my destination independently?

The Accessibility Guidelines look at the mobility system and the entire journey chain



Highlights

Process and Policy

International and national laws and regulations + elaboration of process steps policy to implementation

Open to all

Three levels of accessibility: 'basic', 'extra' and 'green'

Requirements for an accessible public space

Pedestrian

Guidelines about free passage space, height differences, route guidance, etc.

Visibility and overview

Logical and readable route

Bicycle

Guidelines on crossings, traffic lights, etc.

Parking facility



Highlights

Public Transport

Bus stops as well as tram and metro

Car

Parking spaces

Charging infrastructure

Route and travel information

Route information: how a traveler can get from A to B

Landmarks and signage

Travel information: public transport departure times, accessibility of stops, map

Management, monitoring, maintenance, and enforcement

Temporary situations: usability of routes and an accessible signage and diversion plan.

In advance: Strategic management plan and involving management and maintenance early in the design process

Afterwards: Monitoring, evaluation, and enforcement.



Accessibility is more than a wheelchair path

Physical – can I use the route and facilities?

Visual – can I see, recognize and follow what I need?

Auditory – can I hear relevant information?

Mental/cognitive – are the structure, information and route predictable?

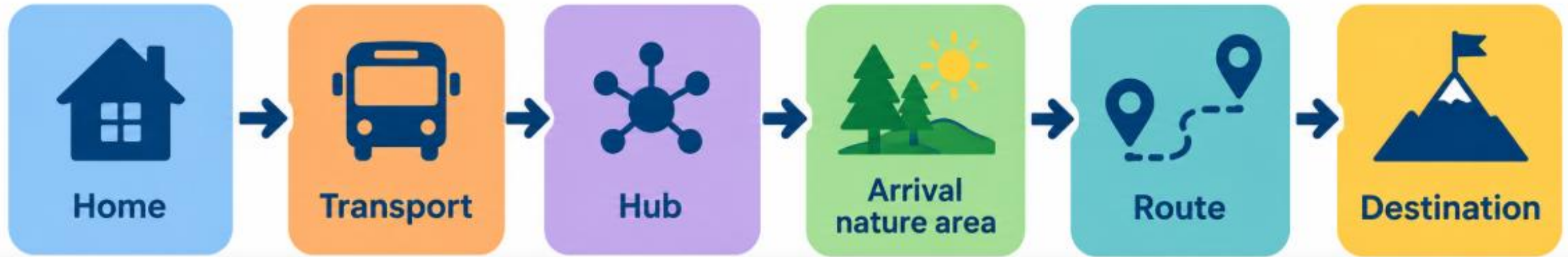
Social – do I feel welcome and safe, and can I get help?



Think about the entire journey

Every link in the chain can make or break the journey.

At every transition, ask: can everyone continue independently?

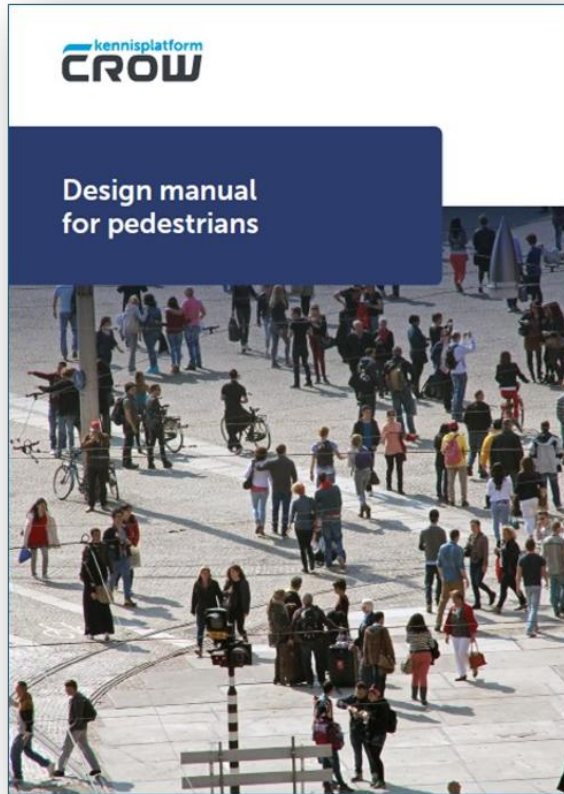


Accessible routes in nature-areas

- Sufficient clear space and maneuvering room
- Limited level differences and a usable surface
- Logical, intuitive main route
- Places to rest and clear crossings
- Indicate which users and vehicles the route is suitable for



Pedestrian: five main requirements



Based on user needs (elements of walkability)

and

similar to the Design Manual for Bicycle Traffic

- 🚶 Walkability (Usefulness)
- 🚶 Directness
- 🚶 Recognizability
- 🚶 Safety
- 🚶 Attractiveness

Usefulness



- ✚ Connecting places
- ✚ Comfort:
 - Smooth surface
 - No steep slopes
 - Protection against bad weather conditions
- ✚ Winter management
- ✚ Choice for more than one route
- ✚ Enough space to go side by side
- ✚ Inclusive accessibility

Directness



- 🚶 Direct in distance
- 🚶 Direct in time
- 🚶 No unnecessary detours
- 🚶 No unnecessary stops or waiting time

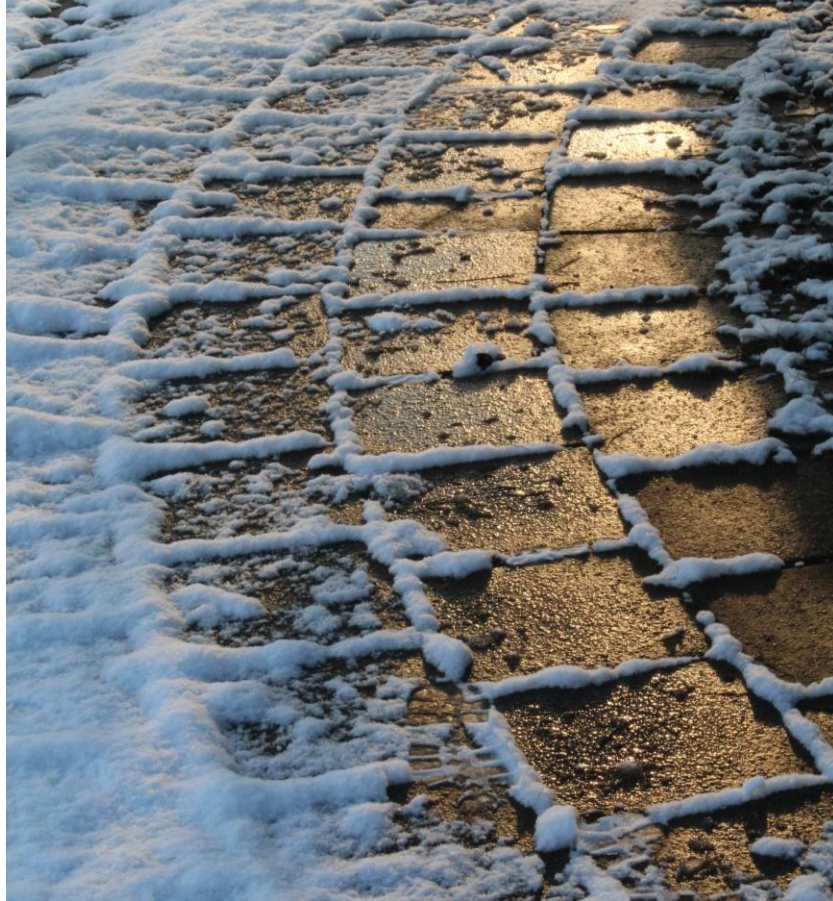
Keep this also in mind at road work zones!

Recognizability



- ✚ Easy wayfinding
- ✚ Sufficient (public) light at nighttime
- ✚ Orientation; also, for visual impaired persons

Safety



- 🚶 Road safety
- 🚶 Social safety
- 🚶 Both objective and subjective
- 🚶 Health

Attractiveness



- 🚶 Variety and surprise
- 🚶 Activities along the route
- 🚶 Orientation
- 🚶 Positive stimuli for all senses
- 🚶 Use environmental opportunities
- 🚶 Clean, whole, well tended/looked after

If the infrastructure is okay invest in attractiveness

Bicycleparking

- Enough passing and maneuvering space
- Space for cargo bikes, crate bikes and adapted bicycles
- Logical layout and short distance to the entrance/destination
- Good connections to walking and cycling routes
- No thresholds or obstacles between the bicycle parking and the route
- Prevent parked bicycles from blocking clear walking space



Mobilityhub: barrier-free transfers

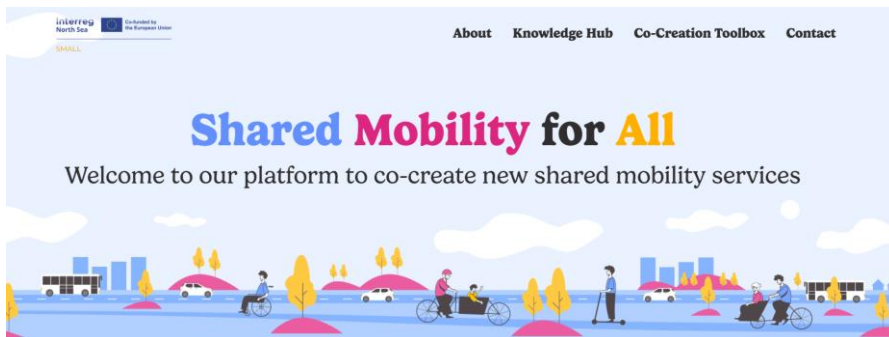


- Public transport ↔ bicycle ↔ car ↔ shared mobility ↔ walking
- Short, easy-to-understand and obstacle-free connections
- Information and wayfinding at the transfer point
- Take account of crowds, sensory stimuli and different users
- Management agreements where there are multiple owners

Shared mobility

both the vehicle and its surroundings must be accessible

- Can everyone reach and safely approach the vehicle?
- Is operation / unlocking understandable and usable?
- Does the clear walking route remain free of abandoned vehicles?
- Is it clear where the vehicle may be returned?
- Is there space for adapted forms of mobility?



<https://sharedmobilityforall.eu>

Primeur: Deelfietsen in en rondom Nationaal Park Weerribben-Wieden!



Management: accessibility must continue to work

- Overgrowth, loose tiles, mud, obstacles and incorrectly parked bicycles can make a well-designed environment inaccessible.
- Temporary situations and construction works must also be designed to be accessible.
- Involve people with lived experience in inspections and evaluations.
- Make accessibility part of routine management and maintenance.



Wayfinding as a common thread

Where am I?

Where do I need to go?

Which route is suitable for me?

How do I know I am still on the right route?

How do I recognize my destination?

Visual: contrast, landmarks, wayfinding

Mental: structure, overview, predictability

Physical: information must be accessible and usable

Digital: support, but not a substitute for an understandable physical environment



Wayfinding



ORIENTATION

Where am I?



NAVIGATION

Where do I go?



INFORMATION

What helps me?

Start with the visitor

Where am I, what is my destination?

- Make the route logical and predictable: information is needed before and throughout the journey.
- Use landmarks that are distinctive, logically placed and easy to see.
- Focus on decision points: this is where visitors need to choose between routes.
- Repeat destination names consistently until the destination is reached.
- Use a uniform system so the same type of information can be recognised in the same type of place.



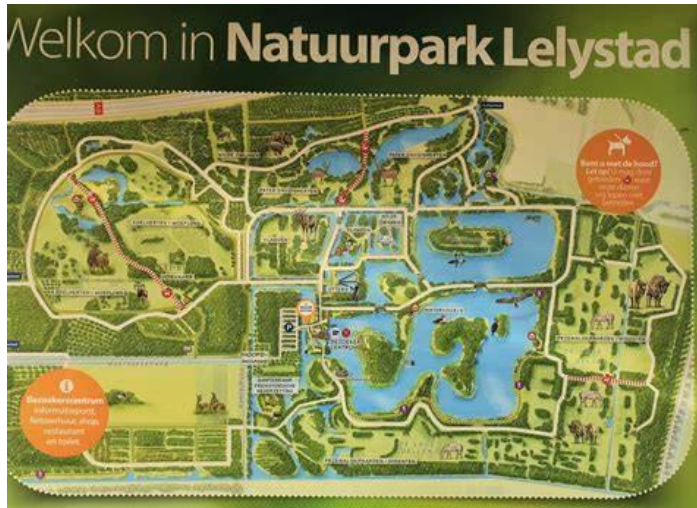
Make signage clear and easy to perceive

- Provide strong contrast between the sign and its surroundings, and between text/symbols and the sign.
- Use a clear sans-serif typeface and size text according to viewing distance.
- Use recognisable pictograms; avoid highly stylised or abstract icons.
- Avoid glare, backlighting, shadows and reflections; provide adequate lighting.
- Keep sightlines clear: trees, vegetation and objects should not hide signs.



Do not rely on vision alone

- Visual



- Tactile



- Auditory



Put information in the right place — at the right time

- Place wayfinding information at decision points.
- From one sign, the next sign should be visible or otherwise perceivable.
- At bends or longer gaps between signs, provide additional/repeater signage.
- Clearly indicate key facilities such as entrances, exits and toilets.
- Signpost accessible alternatives, such as accessible routes, ramps or lifts.
- Make sure signs do not obstruct the clear walking space.



Applying wayfinding in nature parks

Translate the principles into the landscape

- Use recognisable landscape features: a bridge, forest edge, viewpoint, artwork or distinctive building.
- Make routes recognisable and consistent: use the same names, symbols and visual language throughout the park.
- Provide information before the visit and along the route about choices and accessibility.
- Where routes differ, show which route is suitable for different visitors and mobility needs.
- Check the whole journey: information only helps if the route itself is reachable, usable and navigable.



Practical wayfinding checklist

- ☐ Is it clear where the visitor is?
- ☐ Are destinations clearly indicated at decision points?
- ☐ Is signage consistent and recognisable?
- ☐ Are text and pictograms readable and high-contrast?
- ☐ Are sightlines to signs unobstructed?
- ☐ Can people with different sensory needs access the information?
- ☐ Are accessible routes and facilities clearly identified?
- ☐ Is the route itself obstacle-free and logical to follow?
- ☐ Does the information match the current situation?



Key message

Accessibility = the entire journey

not just the path

but also parking • cycling • hub • shared mobility • information • wayfinding •
management

More information

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<https://www.crow.nl/kennisproducten/leidraad-toegankelijkheid/>

Thank you for the attention!



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