

National Cycle Network - Accessibility Fund



Application Guidance | 2025 - 26

To find out more, please contact:

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About

Sustrans Scotland's Accessibility Fund is a capital infrastructure programme which provides funding to **remove barriers and other restrictions on the National Cycle Network (NCN)**, making walking, wheeling and cycling routes in Scotland more accessible for everyone.

Funded by Transport Scotland and managed by Sustrans Scotland, the programme aims to enable our partners to implement measures focused on improving access to the National Cycle Network.

Who can apply?

The fund is open to any organisation which:

- **Owns, manages or has permission to implement change** on land that the National Cycle Network runs on in Scotland; and
 - **Has the competence to act as a client under Construction Design Management 2015 legislation**
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What can you apply for?

We can fund **up to 100% of costs for permanent infrastructure projects** which improve access by removing or re-designing barriers and restrictions on the National Cycle Network.

In line with national guidance, **Sustrans operate the fund with a preference for removal over re-design, where safe to do so.** However, in cases where re-design is chosen, justification of the decisions should be provided.

We can fund design costs only, constructions costs only (where suitable designs are in place), or both design and construction costs. **Available funding will be capped at £50,000 per location** with proposals over this value being referred to our infrastructure team for consideration.

For the purposes of this programme, **an access control or physical restriction is fundable.**

This includes:

1. **Access controls** - a physical barrier installed with the intention of controlling movement or access to the NCN, e.g:
 - Bollards
 - Chicane
 - Gateway
 - A frame / K frame
 - York barrier
 - Kissing gate
 - Cattle grid
 - Horse stile

2. **Physical restrictions** - a physical feature that, whilst not intended to restrict movement or access for legitimate users, has this effect, e.g:

- Steps
- Ramp or gradient
- Structures (minor works)
- Crossings (minor works)
- Gap or pinch point
- Street clutter or obstruction
- Tight turn
- Speed bump
- Kerb or level change
- Surface imperfection

Examples of work that can be funded include:

- Removal or adjustment of access controls (bollards, chicanes, gates, cattle grids etc);
- Where there are steps, providing an alternative ramp;
- Localised widening of existing pinch points / tight turns;
- Addressing dropped kerbs and tactiles at crossings.

There is a third category of barrier - **Environmental Factors** - that may impact ease of use, comfort, and attractiveness of the NCN, which fall outwith the scope of this fund and as such, are **not currently fundable**. This includes:

- Cyclical maintenance
- Winter maintenance
- Litter picking
- Lighting

If you have any questions regarding the suitability of your project for funding, please contact the team on scotlandbarriers@sustrans.org.uk and we will be happy to advise further.

What information and data is available?

In 2022, Sustrans completed a detailed audit of all barriers on the traffic-free National Cycle Network in Scotland.

This data is available to partners to help prioritise non-compliant barriers on their sections of Network through the fund [online application tool](#)¹

For more information on the audit or the mapping and assessment app being used, please email scotlandbarriers@sustrans.org.uk

¹ Online application tool requires free GIS registration to generate a login.

Assessment Criteria

All applications will be assessed against the following criteria:

Location: All barriers must be **located on a National Cycle Network route or currently preventing direct access onto a National Cycle Network route**, usually within 100m of the NCN. This is essential criteria for the fund; if the barrier is not on the NCN itself or on an immediate link route we are unable to fund its removal.

Deliverability: All funds must be drawn down and Sustrans-funded work completed by **31st March 2026**, and partners must provide evidence of a visible improvement which has had an immediate accessibility benefit.

Monitoring & impact: Applicants should be able to demonstrate how funded projects have delivered improved access for everyone, and any wider impact of barrier removal. We ask that applicants provide **pre- and post- project imagery and critical dimensions** to evidence the impact of projects, any existing monitoring data, **and a brief overview of the project impact following delivery**. Sustrans may commission further detailed monitoring and case studies of selected projects in future. If a partner has any recent monitoring data for the site(s) currently, please make us aware of this.

The Equality Act 2010 and the Public Sector Equalities Duty: Barrier removals are designed to address restrictions so that there is improved access for everyone to the National Cycle Network. It is crucial that any measures put in place improve access for all, and care must always be taken to ensure people with protected characteristics and other groups who require additional support are considered appropriately. More guidance can be found from the [Equality and Human Rights Commission](#).

Community and Stakeholder support: Removing or adjusting infrastructure can be a contentious issue, so it is essential that this is considered prior to making an application. Engagement with users and relevant stakeholders e.g. statutory authorities and maintenance bodies should be evidenced as part of the Equality Impact Assessment (an EqlA template will be available on the [fund website](#) by the end of February.)

Costs: We will undertake an assessment of your predicted projects costs to ensure the scheme is value for money and impactful. Although not essential to secure a grant award, **any match or in-kind funding from a partner** will be considered during the assessment process.

How to apply

The funding period will begin on the 1st April 2025.

Applications are submitted **via an [online application tool](#)** that will enable you to complete a short form for each site proposed – including **a brief summary of works, indicative costs/construction dates and any other relevant information** to help the assessment team assess value for

money/impact alongside the key assessment criteria. Our team may follow up for more information or details to support your application.

Proposed projects should be careful not to inadvertently reduce accessibility for individual, non-motorised user groups or to exacerbate health inequalities. Proposals that include a modification/re-design **must** meet the **absolute minimum** dimensions (Appendix A) to be eligible for funding. The aim should be to provide the **highest level of service for all users** and designs should aspire to achieve **desirable dimensions** where possible. Where no deliverable solution arises, these locations will be recorded as “Assessed – not deliverable”.

Successful applicants will be asked to provide basic details of design and a planned delivery programme alongside a spend profile for the project. Applicants should use relevant [supporting document templates](#) (available on the [fund website](#) by the end of February) and provide evidence of statutory requirement compliance (e.g. CDM) and safety audits, where applicable.

Closing date for applications

The **funding scheme will close on the 12th May 2025**. Sustrans reserve the right to extend this window or re-open the fund if finances allow. All Sustrans-funded work must be completed, and all Sustrans grant funded-support must be drawn down by **the 31st March 2026** using our [online Grant Portal](#). When the funding window has closed, Sustrans will review all applications and be in contact by the 13th June 2025 confirming whether it has been successful.

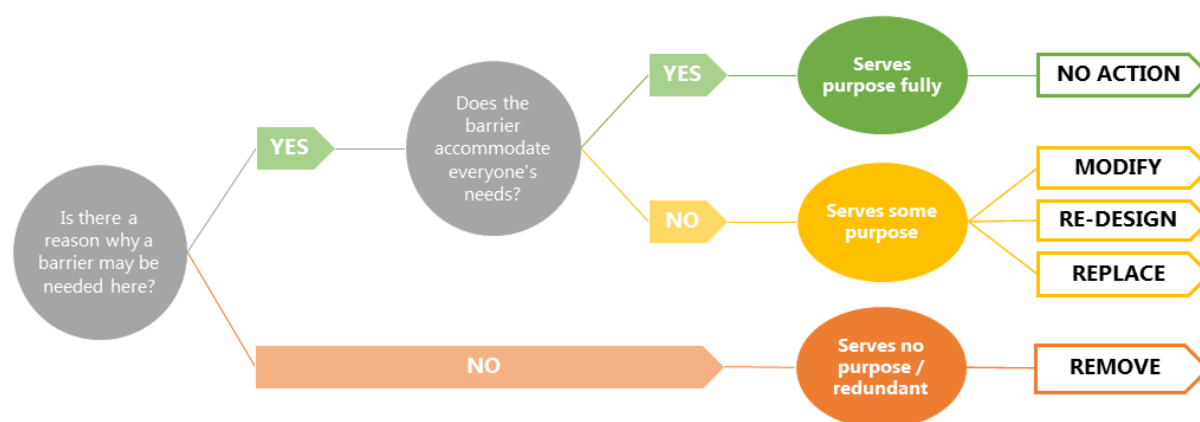
Appendix A: Supplementary fund design guidance

This section should be read in conjunction with all relevant design guidance – see useful online resources in Appendix B.

Below, you will find design considerations for access controls. And a list of barrier types, as recorded on our audit mapping tool, outlining:

- Why they can be an issue for accessibility / non-compliant, and
- Whether / where they can be used appropriately, with critical dimensions (minimum/desirable) to achieve accessible layouts.

1. Access controls – design considerations



Decision making hierarchy for existing barriers (Sustrans)

1.1 Using the least restrictive option

Access control measures are restrictive in nature and may exclude some users from the National Cycle Network. National design guidance outlines “there should be a **presumption against the use of access control measures** unless there is a persistent and significant safety or personal security concern raised by unwanted access” (*Cycling by Design 2021, 3.5, Access Control, p.70*). **Applicants are encouraged to assess locations on a case-by-case basis aiming to achieve the least restrictive solution.**

1.2 Setback from junction or crossing

Consideration should be given to providing sufficient space beside access points for path users to stop safely and away from carriageways (*Sustrans*). Path users should be able to approach the transition in a straight line and be free to concentrate on safely navigating any interaction with vehicular traffic. **The preference² for setback is 4.0m** (*Paths for All, section 5 gaps, bollards, and barriers – key design considerations*). Location conditions must be considered when choosing a suitable setback as described in *Cycling by Design (4.1 Crossings, Principles)*.

² Where preferences are not achievable, evidence of design rationale is requested.

1.3 Control of cycle user speed at crossing or interactions

For the control of cycle user speed, it is preferable to adjust the horizontal alignment³ on approach to crossings or other points of interaction and ensure that good forward visibility is provided to these points. This will allow cycle users to be fully aware of the interaction points and the need to adjust speed accordingly to give way to pedestrians or motor traffic if required (*Cycling by Design*, page 70). Other suggestions to highlight a hazard include improved visibility / sightlines at the interaction (e.g. vegetation clearance), provision of warning signs, surface road markings (slow or give way) and/or different coloured/textured surfacing.

2 Access Controls – by barrier type

2.1 Bollards

A single bollard, or row of evenly spaced bollards, is the least restrictive way to prevent vehicle access, or warn users of the approach to a road. However, the layout must ensure safe access for all mobilities. Bollards that are closely or unevenly spaced can be restrictive and/or confusing. Bollards should be visible in all light conditions, to all path users, including partially sighted people, by contrasting with their surroundings & using reflective bands.

Bollards	Absolute Minimum	Desirable
Critical dimensions / features	1.5m clear width (<i>Cycling by Design 2021</i>) 1.0m height (<i>Inclusive Mobility</i>) Bollard visibility - good visual contrast to background, with reflectors	1.7m clear width or 2.0m - no vehicle access issues (<i>Wheels for Wellbeing</i>) 150mm minimum reflective bands (<i>BS8300</i>) 2 compliant gaps providing 2-way flow (<i>Sustrans, Wheels for Wellbeing</i>)
Further guidance	<i>Inclusive Cycle Infrastructure Guide: Vehicle access restriction bollards (Wheels for Wellbeing)</i> <i>1.5m straight-line access widths and 4.0m turning radius for larger cycles and mobility aids (Wheels for Wellbeing)</i>	

2.2 Chicanes

Chicanes, typically formed from two or more staggered panels, restrict multiple types of users when spacing between panels impacts the ability to manoeuvre safely. Even if designed to be accessible they can cause difficulty or confusion for people with visual and cognitive impairments or hidden disabilities and will act as a restriction to 2-way flow. Please refer to '1.3 Control of cycle user speed at crossing or interactions' in this document.

If there is no other option than to provide a chicane, then it should be used to provide a visual cue to users to slow down rather than a physical restriction. Any layout must be accessible by the cycle vehicle (*Cycling by Design*, Table 2.2, page 17) and the specific dimensions required to accommodate this will vary depending on the site context. Any layout should be designed on a

³ Altering the alignment of the path to create a natural bend / chicane to slow users on approach to a crossing. Although this is the preference, site / cost limitations may mean this is not always a realistic solution.

location specific basis using swept path analysis or testing on site with different cycle vehicle types to ensure fully accessible. And designers should ensure there is no overlap of panels.

Chicane	Absolute Minimum
Critical dimensions / features	1.5m clear width (<i>Cycling by Design 2021</i>) 3m-3.5m* length between panels Good visual contrast
Further guidance	<i>Cycling by Design, 2021</i> <i>For cycle vehicle guidance - Cycling by Design, Table 2.2, page 17</i> <i>Sustrans traffic free routes and greenways, 9.3 access points at roads</i>

NB: dimensions marked with* above are based on Auto TURN in-house swept path analysis studies. 3m is the absolute minimum, however a more generous gap is preferable i.e.3.5m. *Cycling by Design 2010* previously recommended 3m but they have now removed critical minimum dimensions, with a preference against chicanes.

2.3 Gateway

Gateways are exclusive by nature for adapted transport methods and should be used only when absolutely necessary, for example **when in proximity to rail crossings or livestock**. Designs should ensure **adequate manoeuvring space** along with **two-way opening** gate panels and an **accessible and visible two-way latch design** positioned to enable easy operation.

Gateways	Absolute Minimum	Desirable
Critical dimensions / features	1.5m clear width (<i>Cycling by Design 2021</i>) Good visual contrast	1.2m height recommended / 2.0m for deer gates (<i>Paths for All</i>) 4.0m x 4.0m turning radius / manoeuvring space each side (<i>Wheels for Wellbeing</i>)
Further guidance	<i>Paths for All, outdoor access design guide, section 6 gates, p.35</i> <i>British Standard 5709:2006. Gaps, gates and stiles</i>	

2.4 A frame, K frame and York Barriers (non-compliant)

A frame, K frame and york barriers are designed to prevent motorbike access. They can be severely restrictive to people of all mobilities and are therefore **non-compliant** with access and equalities legislation.

2.5 Kissing gate (non-compliant)

Kissing gates, designed for pedestrians only, obstruct access for many people and are therefore **non-compliant** with access and equalities legislation. Where present, adjacent alternative access must be provided.

2.6 Cattle grid

“Cattle grids can be difficult for cycle users to cross and should be avoided where cycle access is being designed.” (*Cycling by Design 2021, 3.5 access control, p.70*). **Consideration should be**

given to alternative solutions such as temporary closure gates allowing livestock movements for as short a time as possible, with a sign stating clearly why the temporary closure is underway. Where existing cattle grids are non-negotiable, an accessible bypass should be provided.

Cattle grids	Absolute Minimum	Desirable
Critical dimensions / features	<p>1.5m clear width</p> <p>Flat topped bars (rectangular section) Anti-slip finish (<i>Sustrans traffic-free routes and greenways, 9.4 Agricultural crossings and livestock control</i>)</p> <p>Provide accessible bypass</p>	Temporary path closure with a temporary closure gate allowing livestock movement

2.7 Horse stile (non-compliant)

Horse stiles can act as a barrier to people with mobility issues who are walking, wheeling and cycling, as well as novice or inexperienced horse riders. Horse stiles for this reason are **non-compliant** and can exclude many legitimate users from the National Cycle Network.

3 Physical Restrictions

3.1 Steps, ramp or gradient

Steps - Steps can be difficult for many people and are not accessible for wheelchair users and those riding adapted bikes. Although, for some people with limited mobility, steps can be preferable to ramps. Where steps exist, **a bypass ramp should be provided, or alternative ramped access within a reasonable distance.**

Ramp	A slope along a path that is steeper than 5% / 1:20
Or Gradient?	A slope that is less than 5% / 1:20

Gradients - Long and sustained or steep gradients can be difficult for people with limited mobility or those with visual or cognitive impairments. However, for many people ramps are preferable to steps. **Locations considered for this fund should be localised and deliverable against the assessment criteria with gradients verified by independent measurements.**

Gradient	Absolute minimum	Desirable
Critical dimensions	<p>3% / 1:33 - 5% / 1:20 gradient</p> <p>Maximum length: dependant on gradient - see Sustrans Traffic Free Routes and Greenways 7.5.1</p> <p>Effective width: follow national guidance (<i>Cycling by Design 2021 3.4 geometric design requirements and dimensions for cycle tracks table 3.7, 3.8 and 3.9</i>)</p>	<p><3% / 1:33 gradient</p> <p>(<i>Cycling by Design 2021, 3.4 geometric design requirements, table 3.5</i>)</p>

	NB: Additional width required on gradients greater than 3% (<i>Cycling by Design 2021, table 3.7</i>)
Further guidance	<i>Sustrans traffic-free routes and greenways, 7.5 vertical alignment</i> <i>For short localised pinch points <6.0m long refer to '3.5 Gaps and Pinch Points' in this document.</i>

Ramps	Absolute minimum	Desirable
Critical dimensions	5% / 1:20 - 7% / 1:14 maximum gradient (<i>Cycling by Design 2021</i>) Maximum length: dependant on gradient – see further guidance and table below Effective width: see further guidance NB: Additional width required on gradients greater than 3% (<i>Cycling by Design 2021, table 3.7</i>)	<5% / 1:33 gradient (<i>Cycling by Design 2021, 3.4 geometric design requirements, clause 3.4.4</i>)
Further guidance	Design compliance is determined by path width, length in relation to gradient and provision of landings / resting places and handrails. For length/widths – follow <i>Cycling by Design 2021, 3.4 geometric design requirements and dimensions for cycle tracks table 3.7, 3.8 and 3.9</i> More guidance - <i>Cycling by Design, 4.8 grade separated crossings, ramps p.150</i> <i>Roads for All: Good Practice Guide for Roads</i> <i>Inclusive Mobility 2021, 5.2 ramps</i> <i>BS 8300:2018, design of an accessible and inclusive built environment, 9.2.3 ramp widths</i> <i>Landings: BS8300-1:2018, 9.2</i> <i>Handrails: Sensory Trust; Paths for All, outdoor access design guide, 8</i>	

Ramp Gradient	Recommended Maximum Length	Recommended Maximum Rise
5%	10 m	500 mm
7%	5 m	350 mm

Cycling by Design, table 3.6: ramp requirements

3.3 Structures

The Sustrans audit captured some data where the NCN passes over / under structures. Structures may be restrictive due to their effective width and / or length causing a pinch point, and where parapet heights are lower than recommended (e.g. bridges or aqueducts), or where headroom is restricted (e.g. an underpass or tunnel).

Minor works that improve accessibility may be considered for this fund (e.g. surface improvements, anti-slip treatment, improved visibility (e.g. at junctions), reflective strips, localised vegetation clearance, warning signage). Major improvements / structure re-designs are out of scope

for the Accessibility Fund, but partners are encouraged to address these through other funding sources wherever possible.

Key dimensions to consider for structures are clear width, length of structure, height of parapets or head height, along with other accessibility issues such as visual contrast and lighting. For existing structures, where guidance cannot be met, mitigation measures and risk assessments may be required. For longer structures, it should be possible for two adapted bikes to pass each other safely.

Structure (route passes over)	Absolute minimum	Desirable
Critical dimensions	<p>For new structures:</p> <p>Dimensions must conform with national guidance (<i>Cycling by Design 2021 section 4.8 Grade separated crossings, Overbridges, cl. 4.8.5 – 4.8.8, p.153 and 3.4 Geometric Design Requirements</i>)</p> <p>1.5m parapet height or 1.8m for equestrians (<i>Cycling by Design 2021, cl. 4.8.7</i>)</p> <p>For existing structures:</p> <p>1.5m clear width (as per gap / pinch point) - where no adjacent hazards present, up to a max. length of 6.0m). Longer structures should follow general guidance.</p> <p>1.4m parapet height or 1.2m with additional clearance width (<i>Cycling by Design 2021, cl. 4.8.9</i>)</p>	<p>Segregation of pedestrian / cycle users preferred</p> <p>Use of tonal contrast / surface texture / advisory line</p> <p>NB: additional buffer width / clearance required where the route is adjacent to a carriageway / hazard (e.g. canal), or to compensate for low parapets (<i>Cycling by Design 2021, table 3.8, cl. 4.8.9</i>)</p> <p>Mitigation measures required where guidance cannot be met</p>
Further guidance	<p><i>Sustrans Traffic-free routes and Greenways, 10.3 Bridges Inclusive Mobility 2021 - 4.2 Width and Height Clearance Risk Assessment / Equalities Impact Assessment may be required</i></p>	

Structure (route passes under)	Absolute minimum	Desirable
Critical dimensions	<p>For new structures:</p> <p>Dimensions must conform with national guidance (<i>Cycling by Design 2021 section 4.8 Grade separated crossings, Underbridges,</i></p>	<p>Segregation of pedestrian / cycle users preferred</p> <p>Optimise through visibility / natural light</p> <p>NB: additional buffer width / clearance required where the route is adjacent to a carriageway / hazard (e.g. canal), or to</p>

	<p>cl. 4.8.1 – 4.8.4, p.151 and 3.4 Geometric Design Requirements)</p> <p>2.20m headroom height (<i>Cycling by Design 2021, table 4.6</i>)</p> <p>For existing structures:</p> <p>3.0m clear width (<i>Cycling by Design 2021, cl. 4.8.3</i>)</p> <p>Relaxations to headroom height may apply (<i>Cycling by Design 2021, cl. 4.8.4</i>)</p>	<p>compensate for low parapets (<i>Cycling by Design 2021, table 3.8, cl. 4.8.9</i>)</p> <p>Mitigation measures required where guidance cannot be met</p>
Further guidance	<p><i>Sustrans Traffic-free routes and Greenways, 10.4 Subways and Underpasses and 6.2 Headroom</i></p> <p><i>Inclusive Mobility 2021 - Inclusive Mobility A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure: 4.2 Width</i></p> <p><i>NB: Risk Assessment / Equalities Impact Assessment may be required</i></p>	

3.4 Crossings (see also 3.9 Kerb or level change)

The audit includes some data for controlled and uncontrolled crossings. Crossings and transitions can create significant barriers to accessibility, particularly where space to manoeuvre / waiting area or level access is limited or there is a level change.

Minor works that improve accessibility may be considered for this fund generally, where associated with an adjacent barrier removal or re-design (e.g. widening of waiting area / dropped kerbs, tactiles, line marking / visual contrast, sightlines and installation of warning signage). Major improvements / crossing re-design are out of scope for the Accessibility Fund. **Locations considered should be deliverable against the assessment criteria and may require engineering design input including swept path analysis and a Road Safety Audit.**

Safe and effective crossings should minimise potential for confusion, distraction and user conflict. Reducing obstacles and providing generous space allows people to wait safely before crossing, pass in opposite directions without conflict, and navigate the space from any direction. Consideration should be given to enable ease of movement for all cycle types and mobility aids, accompanied groups, families, and people with cognitive or sensory issues. They should be able to face the crossing head on within a level waiting area, without the need to change direction or level whilst moving forwards to cross. Designers should follow guidance for the **appropriate / relevant crossing type**, including dimensions for **waiting or landing areas, path width, dropped kerbs** and **tactiles**.

Crossings	Absolute minimum	Desirable
Critical dimensions	<p>Width varies between 1.5m – 4.0m (depending on path / crossing type – see <i>Cycling by Design 2021, table 3.7 dimensions for cycle tracks and section 4.0 Crossings</i>)</p>	<p>Waiting / landing area - should accommodate 1.0m x 2.8m cycle design vehicle (<i>Cycling by Design 2021, Cycle vehicle, p.16</i>)</p> <p>Dropped kerb / raised table - should extend full width of crossing</p>

Further guidance	<p>“Guidance on tactile paving and dropped kerbs is contained in (DfT) Guidance on the use of tactile paving surfaces and Roads for All, Good practice guide for roads respectively” (Cycling by Design 2021)</p> <p>See also: <i>Inclusive Mobility</i>, 4.11 dropped kerbs and raised crossings</p>
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3.5 Gap or pinch point

A gap or pinch point can be created by localised narrowing of the path due to presence of edge constraints (e.g. railings, wall, fixed structure). Very narrow gaps may obstruct access, but longer pinch points may also make it difficult for two people to pass each other.

Gap or pinch point	Absolute minimum	Desirable
Critical dimensions	<p>1.5m clear width (<i>Cycling by Design 2021</i>)</p> <p><6.0m length (<i>Inclusive Mobility 2021</i>, 4.2 Width)</p> <p>2.3m unobstructed height (<i>Inclusive Mobility 2021</i>, 4.2 Width and height clearance; <i>Sustrans</i>)</p>	<p>1.7m clear width or 2.0m - no vehicle access issues (<i>Wheels for Wellbeing</i>)</p>
Further guidance	<p>Follow general design guidance for lengths over 6.0m:</p> <p><i>Cycling by Design Update 2021</i>, table 3.7 dimensions for cycle tracks & table 3.9 clearance to objects and other features</p> <p><i>BS 8300-1</i>, 8.2.1 Street furniture</p>	

3.6 Tight turn

Tight turns can be restrictive, particularly where they require a sharp change in direction or are associated with kerbs / edge constraints or gradients. Enough width must be maintained through the turn to ensure access for people of all mobilities.

Tight turn	Absolute minimum	Desirable
Critical dimensions	<p>Effective width: follow <i>Cycling by Design 2021</i>, 3.4 geometric design requirements, 'dimensions for cycle tracks' table 3.7, 3.8 and 3.9</p> <p>Accommodate 1.2m* x 2.8m cycle design vehicle with up to 3.2m additional turning circle requirements (<i>Cycling by Design 2021</i>, table 2.2: <i>Cycle vehicle requirements</i>, p.17)</p> <p>*width of design vehicle increases at bends.</p>	<p>4.0m turning circle outer radius (<i>Wheels for Wellbeing</i>, <i>swept path analysis for accessible travel</i>, 3.1.1)</p> <p>Junctions between paths should have either a 2m radius or a 45° chamfer (<i>Sustrans</i>)</p>
Further guidance	<p>See design guidance for path widths and geometry - <i>Cycling by Design</i> and <i>Sustrans traffic-free routes and greenways</i>, 7.4 horizontal alignment</p>	

3.7 Street clutter or obstruction

Poorly placed or redundant street furniture (e.g. utilities, signage, benches / bins) can be restrictive by causing pinch points and hazards, making it difficult for people who are blind or partially sighted to get around and adding to visual clutter / confusion for those with cognitive impairments.

Street furniture should be located so that it **does not obstruct the path**, with **clear visual contrast**. **See 3.4 Gap or pinch point, above, for guidance on dimensions.**

3.8 Speed bump

Speed bumps, speed cushions and rumble strips (traffic-free and on road) are generally **non-compliant** as they can be restrictive, an alternative footway of 1.5m spacing should be provided. They cause difficulty and discomfort, especially for people riding hand bikes / adapted bikes that are low to the ground.

The least restrictive type of speed bump has a **sinusoidal profile covering the full width of the route**. (*Wheels for Wellbeing, Guide to inclusive cycling, Speed humps p.44*).

3.9 Kerb or level change (see also 3.4 Crossings)

Raised kerbs and level changes (see tolerance below) located along the route are not accessible to everyone and are **non-compliant**.

Level access at all road crossings and transitions is essential, particularly for wheelchair users, whether by a dropped kerb or a raised crossing (*Inclusive Mobility*). "Access to dropped kerbs needs to be **at least 1.5m wide** and proportionally wider when the approach creates an oblique angle. Kerbs in general should not prevent disabled cyclists from pulling over to stop or from getting out of the way of obstacles, other cyclists or traffic" (*Wheels for Wellbeing "A Guide to Inclusive Cycling" 4th Edition 2020, section 04 Inclusive Infrastructure*).

Level change	Absolute minimum	Desirable
Critical dimensions	Flush or permissible tolerance up to 6mm (<i>Cycling by Design 2021, cl. 4.3.7</i>)	Rounded bullnose profile (<i>Inclusive Mobility</i>)
Further guidance	<i>Guidance on tactile paving and dropped kerbs is contained in (DfT) Guidance on the use of tactile paving surfaces and Roads for All, Good practice guide for roads respectively (Cycling by Design 2021)</i> <i>See also: Inclusive Mobility, 4.11 dropped kerbs and raised crossings</i>	

3.10 Surface imperfection

Surface imperfections (e.g. potholes, tree root damage, loose or uneven cobbles) can be a barrier in themselves (*Wheels for wellbeing, A guide to inclusive cycling, imperfections, p.45*). They are particularly restrictive for people riding hand bikes / adapted bikes that are low to the ground, as well as people with visual or cognitive impairments and wheelchair users. Significant surface imperfections (extending full width of path, reducing effective width to <1.5m or more than 20mm deep on

pavements) are recorded in the audit mapping. We understand new surface imperfections may have arisen since the audit, due to weather and usage, and these can be proposed in your application.

Surfaces should be firm, level, non-glare and non-slip when wet or dry (*Sensory Trust*).

For further guidance see: *Inclusive Mobility*, 4.8; *BS 8300*, 8.4.1 pedestrian surfaces, p. 33; *Wheels for Wellbeing*, A guide to inclusive cycling, imperfections, p.45.

4 Sustrans Audit Accessibility criteria

The context of a barrier, as well as its dimensions, can have a significant impact on accessibility. During the Sustrans NCN accessibility audit, barriers were given a rating of 'poor', 'adequate', 'good' (or 'N/A') for each of the following criteria - *condition, surface, gradient, camber, approach, visual / texture contrast, sightlines and lighting*. **We would recommend referring to these criteria when removing, modifying or re-designing barriers and restrictions** (see table below).

Accessibility criteria	Ratings		
	Poor	Adequate	Good
Condition	barrier in disrepair or structurally unsound (e.g. sharp metal projections, rotten or splintering wood)	showing some signs of wear	new and / or well maintained
Surface	uneven surface or unsuitable material (e.g. potholes, areas of puddling, cobbles with wide gaps)	generally even / suitable material	flat, firm, smooth and non-slip when wet or dry
Gradient	steep or sustained	gentle	level
Camber	steep crossfall	gentle crossfall	minor crossfall; path appears level
Approach	a sharp angle of deviation (90 degrees or more); no space to turn / manoeuvre	gentle angle of deviation (less than 90 degrees); adequate space to turn / manoeuvre	direct approach or minor deviation; ample space to turn / manoeuvre
Visual contrast	no colour / tonal contrast from surroundings; no reflective bands present; no visual / texture contrast between surfaces	present but basic and / or showing some signs of wear	clear colour / tonal contrast from surroundings; reflective bands 150mm deep; tactile paving, line marking, edge demarcation differentiates between surfaces
Sightlines	barrier is not clearly visible from a distance; narrow visibility splays; overgrown vegetation at barrier	reasonable sightlines and visibility splays	clear sightlines from both sides on approach to barrier; good visibility at junctions or crossings
Lighting	poor or no lighting; light / dark contrast or shaded spots	remotely lit; no light / dark contrast or shaded spots	well-lit with no light / dark contrast or shaded spots

NCN accessibility audit – accessibility criteria for existing barriers (*Sustrans*)

Appendix B: Useful online resources

- + [Sustrans Scotland accessibility audit background](#)
- + [National design guidance - Cycling by Design revised 2021](#)
- + [Mapillary](#) - free online streetview mapping tool – covers traffic-free NCN
- + [Sustrans traffic-free routes and greenways design guide](#)
- + [Sustrans guidance on access controls and barriers](#)
- + [Inclusive Mobility. A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure](#)
- + [Paths for All, outdoor access design guide 2018](#)
- + [Paths for All, outdoor accessibility guidance 2023](#)
- + [Wheels for Wellbeing, a guide to inclusive cycling 2020 \(4th edition\)](#)
- + **Various Wheels for Wellbeing resources** - see links below (quick guides to legislation, policy & good practice guides and explainers):
- + [Campaigning for inclusive cycling, Wheels for Wellbeing](#)
- + [Wheels for Wellbeing guide to The Equality Act \(2010\) and Access Barriers](#)
- + [Inclusive Cycle Infrastructure Guide: Inaccessible barriers](#)
- + [Bollard spacing for active travel accessibility](#)
- + [Inclusive Cycle Infrastructure Guide: Vehicle access restriction bollards](#)
- + [Accompanied Groups](#)
- + [Tactile paving guidance](#)
- + [Ramps and steps design and planning](#) - Sensory Trust