

Wheels for Wellbeing Guide to LTN1/20



[LTN 1/20](#) is the current Department for Transport Cycle Infrastructure Design guidance for England and Northern Ireland. It sets out clear criteria that explicitly supports the need for inclusive and accessible design for cycle infrastructure.

At Wheels for Wellbeing, we believe that important improvements to public realm accessibility will come from good design and, where necessary, good campaigning using LTN 1/20, along with the [Equality Act \(2010\)](#), [inclusive consultation](#) and [statutory guidance on street works and road works where appropriate](#).

In this guide, we pick out some key points from LTN 1/20 and signpost specific sections to highlight some principles and issues around accessibility.

Get in touch with us via [email](#) for more help, to commission formal [consultation](#) or with comments.

If you're a Disabled cyclist or ally, join our free [Disabled Cycling Activists Network](#) for peer support and resources.

More detail on inclusive, accessible design is available in our [Guide to Inclusive Cycling \(4th edition 2020\)](#) and on our [Resources page](#).

About [LTN1/20](#) Cycle Infrastructure Design

The Department for Transport publishes guidance and standards for design of all transport infrastructure. LTN 1/20 Cycle Infrastructure Design was published in January 2020 to replace LTN 2/08 Cycle Infrastructure Design guidance.

LTN 1/20 is non-statutory guidance, meaning it does not have the legal standing of statutory highways regulations. However, [failing to follow non-statutory guidance](#) without good reason can leave authorities open to legal challenges for discrimination or to have active travel funding withheld.

LTN 1/20 applies in England and Northern Ireland. [Scotland](#) and [Wales](#) have similar cycle and active travel infrastructure guidance. The guidance is intended for highways planners. It sets a framework for local authorities for infrastructure standards and funding priorities.



[Gear Change \(2020\)](#) states “To receive Government funding for local highways investment where the main element is not cycling or walking, there will be a presumption that schemes must deliver or improve cycling infrastructure to the standards in the Local Transport Note”.

[Active Travel England](#) is the government body which holds the national active travel budget for England. They assess larger active travel schemes and developments to ensure provision meets LTN 1/20 standards. Active Travel England provide training and resources to help Local Authorities (LAs) meet the required standards, but may also withhold funding where LAs fail to do so.

LTN 1/20 Five Core Principles

“Accessibility for all is a requirement that should always be considered in relation to each of the principles. Designers should always aim to provide infrastructure that meets these principles and therefore caters for the broadest range of people.” - *LTN 1/20 section 4.2.1*

1. **Coherent:**

Cycle networks should be intuitive, allowing people to reach their destination along routes that are connected, are simple to navigate, and are of consistently high quality.

2. **Direct:**

Routes should be at least as direct, and preferably more direct, than those available to private motor vehicles.

3. **Safe:**

Cycle provision should not only be safe but perceived to be safe so more people are able to cycle. This includes safety from motor vehicles and from harassment, abuse and other crimes.

4. **Comfortable:**

Routes should have well maintained, [good quality, smooth surfaces](#), adequate width for the volume of users and minimal stopping and starting.

5. **Attractive:**

Routes need to be places people want to spend time.

Where to find details within LTN1/20

You don't need to read the whole of LTN 1/20 to make use of it!
Use **ctrl-F** to search for key words relevant to you – but be aware that this search function will not always find text within images or tables.

This section highlights a few areas likely to be particularly useful to those specifically interested in Disabled people's access to active travel routes. It is not a comprehensive guide!

1. Equality and accessibility principles

“Cycle infrastructure should be accessible to everyone from 8 to 80 and beyond: it should be planned and designed for everyone. The opportunity to cycle in our towns and cities should be universal.” – *LTN 1/20 1.6.1(1) Summary Principle*

See sections:

- 1.4.2 – 1.4.3 – definitions,
- 1.5.3– 1.5.4 – core design principles including need for reasonable adjustments,
- fig 1.1, 1.6.1(1) – summary principles,
- 2.4 – inclusive cycling
- 4.2 – core design principles,
- 4.5 – especially 4.5.11, Equality and Access Assessments

LTN 1/20 is clear in its aim to provide accessible active travel for all, recognising cycles as mobility aids, referring to all cycle types and ensuring that designs and management cater for a full range of potential cyclists.

“For many [Disabled] people, a cycle is a mobility aid that helps them get around or carry items or passengers. This does not have to be a specially-adapted cycle – it may simply be a conventional cycle that enables them to travel when they cannot drive, or walk very far, due to a health condition or disability.” – *LTN 1/20 2.4.2*

LTN 1/20 can be used to support the legal requirement for organisations providing public services to have due regard to the need to eliminate discrimination and to promote equality of access and opportunity, enshrined in the [Public Sector Equality Duty](#) of the [Equality Act \(2010\)](#).

2. Consultation and stakeholder engagement

See sections:

- 3.3.5 – 3.3.7 (stakeholder participation including people with protected characteristics)
- fig 3.3 (illustrative range of stakeholders)

[Inclusive consultation](#) is essential to develop scheme designs and management protocols which will be accessible to all user groups.

3. Cycle types, sizes and movement, including minimum route dimension requirements

The Cycle Design Vehicle is a key design concept for accessible cycling provision: It helps ensure cycle provision caters for most real-world cycles by requiring routes and parking to be usable by riders of a vehicle 1.2m wide by 2.8m long, and with an external turning circle radius of 4m. This matches the width of a side-by-side tandem and the length of a standard bicycle plus child trailer.

See chapter 5 geometric requirements, especially:

- 5.2.1 – dynamic kinetic envelope – space for cyclists to move,
- 5.4.1 – dimensions and types of cycles,
- fig 5.2 – typical dimensions of cycles,
- 5.5.2 and tables 5-2 and 5-3 – minimum widths of cycle tracks, including additional width at fixed objects
- 5.7 and 5.8 – stopping sight distances and visibility
- 5.10 – crossfall and camber
- 5.11 – edge protection

And:

- 13.12 – signing for [roadworks](#), including widths and restrictions at road works

*Take care to use table 5-7 not table 5-1 for turning circles on routes: Table 5-1 is for low-speed “parking” manoeuvres only. Table 5-7 is turning circles for cycles moving along a path.

Wheels for Wellbeing recommend using the statutory guidance in the [Red Book](#) and our [Guide to Temporary Works](#) for good practice on active travel provision during works.

4. On-road cycling provision including traffic speeds and volumes

There are a lot of factors which need to be thought about when designing safe cycling space on streets.

“The Cycling Level of Service (CLOS) at Appendix A and the Junction Assessment tools (JAT) at Appendix B are new mechanisms introduced to set minimum quality criteria. Only schemes with a minimum score of 70% under the CLOS, no critical fails and under the JAT no red-scored turning movements will generally be considered for funding [by Active Travel England].” – LTN 1/20 1.1.2

For an overview, see:

- Section 4.4 (protection from motor traffic on highway links)

- Figure 4.1 (appropriate protection from motor traffic on highways)
- Table 10-2 (crossing design suitability)
- Cycling Level of Service Tool (CLOs) – appendix A

CLOs is a relatively easy-to-use table, which most campaigners and all designers should find useful to establish minimum design criteria for local routes. Combining CLOs with the information in figure 4.1, table 10-2 and [Department for Transport traffic data](#) can be a powerful way to illustrate the suitability – or unsuitability – of proposed cycle infrastructure designs.

- Junction Assessment Tool (JAT) – appendix B

JAT is more technically demanding to use than CLOs, but is very important for ensuring scheme safety especially in locations with significant motor vehicle traffic. It should be used by designers and can be of use to some campaigners.

Chapters 6, 7, 9 and 10 contain much more detail on criteria and designs for inclusive carriageway-adjacent and on-carriageway cycling provision.

5. Traffic-free routes, including barriers, ASB, harassment and abuse considerations

“Access control measures, such as chicane barriers and dismount signs, should not be used. They reduce the usability of a route for everyone, and may exclude people riding nonstandard cycles and cargo bikes.” – LTN 1/20 summary principle 16

For detail, see chapter 8, in particular sections:

8.1.2 – key design considerations

8.2 – user conflict including separating cyclists and people walking/wheeling

8.3 – [access controls](#), including:

8.3.5 – using [bollards](#) spaced with 1.5m gaps and straight-line approach for vehicle restriction

8.5 – [accessible surface materials](#)

“Smooth, sealed solid surfaces, such as asphalt or macadam, offer the best conditions for everyday cycling.” – LTN 1/20 8.5.2

Smooth, inflexible surfaces are needed for wheelchair user accessibility: Flexible surface types such as those incorporating resin-bound rubber granules increase rolling resistance and energy needed to move, making these surfaces inaccessible for some wheeled mobility aid users.

6. Cycle parking

Chapter 11 provides details on cycle parking provision in all kinds of locations and for all kinds of cycles.

“The fear or direct experience of vandalism and theft deters cycling. This includes lack of convenient space to keep a bike in the home, which can be particularly problematic in apartments, and for disabled cyclists who need easy access for their cycle... Cycle parking provision should consider all types of cycle vehicle and all types of cycle user.”

LTN 1/20 11.2.1

At Wheels for Wellbeing, we feel the cycle parking standards suggested in LTN 1/20 need to be extended to better enable inclusive active travel. In particular, there are no explicit requirements for accessible cycle parking in table 11-1 and the quantities of cycle parking recommended are far too low.

Particularly concerning, cycle parking provision in residences specifically for Disabled and elderly people is recommended by LTN 1-20 at 0.05 spaces per bedroom. This is 1/20 of the already insufficient 1 space per bedroom recommended for standard, usually inaccessible housing. A lack of accessible cycle storage will prevent older and Disabled people either from cycling or from using other comparably-sized mobility aids.

To mitigate the insufficiency of LTN 1/20 cycle parking recommendations, we have produced our own recommendations, as below:

For accessible cycle parking design:

- We recommend the [Wheels for Wellbeing guide to inclusive cycle parking](#), which includes links to a variety of other cycle parking design guidance documents.

For quantities of cycle parking – and for other mobility aid parking:

- We recommend schemes include at least as many designated spaces for Disabled cyclists as Blue Badge spaces, and provide space for non-Disabled people using larger cycles such as family or cargo cycles.
- Residential schemes should consider numbers of people likely to live in and visit units, and provide sufficient cycle parking including for larger cycle types and cycle trailers.
- Scheme designers should provide space for other mobility aid parking and storage, including mobility scooters. Research into the requirements for mobility scooter parking is needed, to establish parameters such as need for shelter and potentially power to charge these devices, including ensuring the storage stays at a temperature suitable for charging lithium ion batteries.

“Data collected by Transport for London found that the proportion of Disabled Londoners who sometimes use a cycle to get around (15%) is only slightly less than for non-Disabled Londoners (18%), demonstrating that cycling is an important mode of transport for everyone.” – LTN 1/20 2.4.3

Representation of Disabled people

Representation is an essential part of improving access to active travel. For free, high-quality images of Disabled cyclists, [register for our photobank](#) or contact info@wheelsforwellbeing.org.uk