



Infrastructure

As part of our campaign for inclusive streets, Walk, Wheel, Cycle, Vote are asking all candidates for the Holyrood election to sign up to three pledges to improve our streets, on accessibility, infrastructure and investment. This briefing outlines the background to our ask on infrastructure:

Create a long-term programme to rebuild our villages, towns and cities around walking, wheeling and cycling, with active travel infrastructure everyone can use – the initial goal should be that every child who wants to can walk, wheel or cycle to their school.

What do we mean by 'infrastructure'?

In this context, infrastructure refers to the basic features of our streets and wider built environment that enable – or discourage – us to get around by walking, wheeling or cycling. It includes pavements, road crossings, junctions, traffic calming measures, cycle lanes, filters that restrict vehicle access, secure cycle storage and so on.



Why does it matter?

Decades of evidence show that how our towns and cities are designed has an enormous influence on our behaviour¹. We don't just shape our places – they shape us. At the moment, the way many places are designed means that lots of people end up choosing the car by default, because the other options don't feel safe, convenient or appealing: car use is 'locked in'²⁻⁴. As a result, two-thirds of adults in the UK feel it's too dangerous to cycle on the roads⁵.



This car-centric approach has created myriad problems, from fewer children playing outside and disconnected communities, to air pollution and the climate emergency⁶⁻⁹. For instance, children spend less than half as much time playing outdoors as their parents did¹⁰ and almost one-third don't get the recommended levels of physical activity¹¹.

Yet an estimated half to two-thirds of personal journeys could be made by active travel, and independent surveys show that the vast majority of people would like to be able to walk, wheel and cycle more, even if it means allocating road space away from cars^{5,12-13}. For instance, polling in 12 UK cities found that 75% of people think their local high street needs more space for people walking, cycling and socialising, and 60% of people think more cycling would make their local area a nicer place to live¹⁴. Better infrastructure also tends to reduce congestion by shifting a proportion of journeys to active modes, which makes life easier for those whose mobility depends on a car¹⁵.

Evidence shows that the biggest factor in whether people choose active travel is the availability of safe and appealing routes for walking, wheeling and cycling¹⁶⁻¹⁸. This is especially true for groups with lower current levels of active travel, such as women, children, older people and disabled people^{19,20}. (Weather also plays a role, but less than you might think – cycling rates are more than 10 times higher in Denmark and the Netherlands than the UK, despite similar climates¹³).

The good news is that environments that support active travel also tend to be nicer places to live, work and to linger. More accessible streets have been shown to benefit social connections and trust, children's outdoor play, and local businesses, due to increased footfall and browsing^{17,18,21-22}.

Improving the accessibility of neighbourhoods often results in a 'virtuous cycle': as more people walk, wheel and cycle for everyday journeys, places feel safer and more appealing, encouraging others to do the same¹⁷. Street design drives social norms – not the other way round, as is often assumed²³.

What kind of infrastructure do we need?

This is where Scotland's status as an active travel laggard can be turned into a strength: we can draw on a wealth of examples of good design and what works from around the world, from the cool and rainy climes of Copenhagen and Amsterdam to sunny Bogotá and Seville²⁴.



Streets that invite walking and wheeling have wide, well-maintained pavements; plentiful road crossings with longer crossing times; adequate seating and lighting; greenery, places to play and street art; low levels of traffic travelling at safe speeds; and clear boundaries between space for pedestrians, cycles and motor traffic¹⁶⁻¹⁸.

Enabling more people to cycle requires reallocating road space to create well-connected routes physically separate from traffic (e.g. by kerbs, planters or other barriers), intuitive to navigate and accessible for all ages and abilities^{16,25}. Evidence shows that painted lanes do little to improve real or perceived safety of people cycling, and may be more dangerous than no lanes at all²⁶.

In particular, cycle routes need to be sufficiently wide, smooth, and continuous to be suitable for disabled cyclists or those using non-standard cycles such as trikes, cargo bikes or hand cycles, or towing trailers²⁷. Despite legal obligations on equality, too much existing active travel infrastructure is inaccessible because of narrow lanes, tight corners, barriers that can't be navigated or stretches that require people to dismount and push or carry bikes²⁸. Cycle infrastructure also needs to be clearly delineated from pedestrian areas, with safe accessible crossings and access to bus stops, to avoid disadvantaging people on foot, particularly those with sensory impairments²⁹.

To be useful, all active travel infrastructure needs to form a network – we wouldn't build a stretch of road on its own without connections, so we shouldn't settle for walking routes and cycle lanes that end as suddenly as they begin. These networks need to reflect people's everyday journeys – connecting residential areas, public transport hubs and destinations like schools, nurseries, parks, shops, public services, and places of work, and more – and they need to include both direct 'arterial' routes for faster purposeful journeys, as well as quieter backstreets for pleasant meanderings³⁰.

Busy streets work best when everyone gets their own space and everyone gets enough space³¹. Mixing cyclists with pedestrians on crowded shared paths works no better than mixing bikes with heavy traffic; instead we need dedicated space for people and vehicles moving at different speeds³².

Low traffic neighbourhoods – places people can drive to, but not drive through – also help rebalance our streets by providing roads that are quiet enough for safe walking, wheeling, scooting, cycling and play, as well as pleasant places to be¹⁵. Rather than competing for limited space at the margins, we need to change the way our places are designed to give people the confidence to choose walking, wheeling, or cycling, and to enable everyone to move around safely, without exception.



Looking for footnotes? See <http://walkwheelcyclevote.scot/how/infrastructure-briefing-bibliography/> for all the documents and research cited here.