



SHROPSHIRE COUNTY
COUNCIL
*LCWIP Guiding Design
Principles*



CITY SCIENCE
delivering decarbonisation



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1 Walking



Desire Lines



Pedestrian Crossings



Footway Width



Accessible Design



Lower Traffic Speeds



Pedestrian Priority



Place Function of the Street



Context Sensitive Design

1.1 Desire Lines

People walking tend to follow the shortest path to a destination. Improvements to walking infrastructure should seek to accommodate and enhance movements along identified desire lines, as closely as possible.

1.2 Pedestrian Crossings

Appropriate crossing facilities should be provided along pedestrian desire lines to maintain the continuity of a walking route, improve safety, and reduce severance. The type of facility will depend on the context of the crossing. At a minimum, crossings should have appropriate tactile paving and dropped kerbs. At locations requiring greater priority for people walking (e.g., locations with higher traffic volumes and/or speeds, or higher pedestrian flows) signal-controlled crossings may be appropriate.

1.3 Footway Width

The minimum unobstructed footway width for people walking should generally be 2.0m, which enables two people in wheelchairs to pass each other comfortably. Additional width should be considered in areas with higher pedestrian activity (Inclusive Mobility - Manual for Streets).

1.4 Accessible Design

New infrastructure should be accessible to all users. This means avoiding steps and having low-gradient slopes for bridge crossings, ensuring plenty of dropped curbs to allow for maximum crossing points, avoidance of street clutter on pathways and ensuring signs are easy to read.

1.5 Lower Traffic Speeds

High vehicle speeds can reduce the attractiveness of a route for people walking and make them feel unsafe. Vehicle speeds of 20mph or lower are preferred in areas with higher pedestrian activity, including around schools.

1.6 Pedestrian Priority

Design measures should seek to enhance pedestrian priority through design treatments such as side road entry treatments (raised tables, continuous footways), raised carriageway, vehicle access restrictions (point closures) or use of different road surfacing materials to highlight crossings or delineate space for different users

1.7 Place Function of the Street

Different streets have both a place and movement function, and interventions should seek to highlight these purposes appropriately. As the CWZs are focused around high street areas, they are likely to have a relatively high place function. Walking-related interventions should consider measures that enhance the place function.

1.8 Context Sensitive Design

Improvements should complement and enhance the character of the urban environment. The high-level concepts developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.

2 Cycling

**Cycle Facility
Typology.**

**Lower Traffic
Speeds**

**Reduce Motor
Vehicle Flows**

**Review On-
street Parking
& Loading**

**Junction &
Crossing
Improvements**

Uphill Cycling

**Compete with
Motor Vehicle
Journey Times**

Cycle Parking

**Context
Sensitive
Design**

2.1 Cycle Facility Typology

The type of cycle facility appropriate for a given street is highly dependent on its context. Factors such as vehicle flows and speeds, carriageway space, surrounding development and general character of the area should all be taken into account when deciding on the appropriate facility. Selection of an appropriate cycle facility should follow the cycle design principles of segregation from traffic or low traffic speeds/volumes. Segregated facilities are typically recommended by guidance and provide the greatest potential to encourage mode shift because they enable people of all ages and abilities to cycle away from traffic in a comfortable and safe manner. However, the existing street layout of many of Shropshire's streets mean there is not sufficient space for segregated facilities, therefore design measures to support low traffic speeds ($\leq 20\text{mph}$) and flows may provide an attractive option if the route is direct.

2.2 Lower Traffic Speeds

High vehicle speeds reduce comfort and safety for people cycling. Motor vehicle speeds of $\leq 20\text{mph}$ are preferred to minimise speed differential and reduce risk with people cycling. Design elements such as vertical deflection (e.g. speed cushions, raised tables/ raised junctions) or horizontal deflection (e.g. kerb build-outs, tight kerb radii, priority working) may be used, as appropriate, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating. Traffic calming measures should also consider design elements to mitigate impacts on people cycling (or on buses), such as providing cycle bypasses at kerb build-outs to manage potential conflicts with other road users.

2.3 Reduce Motor Vehicle Flows

Strategies to reduce motor vehicle flows (e.g. access or turn-movement restrictions, time restrictions, or modal filters) should be considered on cycle corridors where segregation is not feasible to create a more attractive cycle corridor.

2.4 Review On-street Parking & Loading

On-street parking and loading provisions can create potential conflict points between people cycling and motor vehicles, particularly where there is high parking turnover. Conflicts can arise from either vehicles entering or leaving a parking space, opening of vehicle doors or when parking obstructs visibility. Reducing parking could enable carriageway space to be reallocated for active uses, such as improvements for people walking or cycling. Where parking is retained, provision in recessed bays or on raised pads can provide wider, more flexible footway space and encourage slower vehicle speeds by reducing the carriageway width.

2.5 Junction & Crossing Improvements

Improvements should seek to increase priority for people cycling and improve visibility at junctions (where there tends to be a higher density of collisions), enhancing the safety and continuity of the cycle corridor. At uncontrolled junctions and side roads, improvements should seek to maintain cycle priority along the route and reduce motor vehicle speeds (e.g., tighten junctions, reduce turning radii at side roads, increase vehicle deflection at roundabouts).

2.6 Uphill Cycling

Steep gradients are a significant barrier to cycling in some areas of the county. Design should seek to incorporate provisions that enhance separation from motor vehicles for people cycling uphill, as the speed differential between motor vehicles and people travelling uphill is greater.

2.7 Compete with Motor Vehicle Journey Times

Considering the alignment of the route and the nature of the interventions can help to promote the mode of travel as an equal to motorised modes. The cycle network should be developed so that residential areas across the borough have access to safe, convenient, and attractive routes to/from local town centres, schools, and other key destinations.

2.8 Cycle Parking

Offer a variety of cycle parking types at multiple locations in an area to improve convenience and security.

2.9 Context Sensitive Design

Improvements should complement and enhance the character of urban and rural environments. The high-level concepts developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.

3 Walking & Cycling

Wayfinding

**Inclusive
Design**

**Tactical
Urbanism**

**Collision
History**

**Design
Standards**

Adaptability

3.1 Wayfinding

Good sight lines and visibility of destinations and of cycle corridors are important elements that affect how easy a route is to navigate, how many people cycling use the route, and perceived personal security. Wayfinding signage should be used to aid navigation and encourage use of the designated routes. Appropriate signage can improve confidence in using the route and encourage more walking and cycling trips, particularly for those unfamiliar with the area. Signage that includes a distance and estimated travel time can also help to ensure users do not overestimate the time it takes to make a trip, encouraging increased walking and cycle use for short journeys. A consistent wayfinding system should be applied on routes throughout the borough.

3.2 Inclusive Design

Walking and cycling facilities should provide equal access for people with disabilities and ensure that streets meet requirements for all users, regardless of age, gender and ability, and do not create hazards for vulnerable pedestrians.

3.3 Tactical Urbanism

During implementation, consider temporary, low-cost measures as demonstration projects to test concepts and experiment with different designs. Temporary measures can be a valuable tool to illustrate how the public highway space can be re-imagined and reallocated to different road users and help build public support. Low cost, temporary materials such as paint, planters, or bollards can be used to widen footways or tighten side road junctions.

3.4 Collision History

Aim to address routes/locations with a history of collisions involving people walking and cycling. These areas are important to concentrate on and will be reflected in both the route alignment and the nature of the infrastructure proposed.

3.5 Design Standards

As proposed walking improvements are progressed, design stages should utilise the latest best practice design guidance and standards available at the time, such as:

- Inclusive Mobility (DfT)
- Manual for Streets / Manual for Streets 2 (Chartered Institution of Highways & Transportation)
- Streetscape Guidance (Transport for London)
- Healthy Streets Approach (Transport for London / DfT)
- Local Transport Note 1/20 Cycle Infrastructure Design (DfT)

3.6 Adaptability

Improvements should be developed to accommodate all types of users, and potential growth in the numbers of people walking and cycling.