

Planning & Design for Cycling

SHARE AND SHARE ALIKE - PART 2

In the Oct-Nov '03 edition of *ChainLinks*, we looked into some of the research regarding cyclists in "pedestrian" (traffic-free) areas, such as street malls and squares, and showed that there were few problems in practice. So, assuming you're ready to allow it, what are some of the design issues for cyclists in pedestrian areas?

The first question is whether you need to segregate cyclists from pedestrians in the area in question - this is not always necessary or desirable. At lower flows, both users mingle fairly readily without incident. Where there are appreciable flows of pedestrians or cyclists however, then some delineation should be considered. The Scottish Executive's guidelines (1999) recommend that where combined flows of pedestrians and cyclists are **in excess of 180/hour per metre width** of paved area, a segregated cycle path should be provided.



A clear cycle path can help encourage cyclists to follow a defined route and make pedestrians aware of where cyclists (hopefully!) will be. Usually along streets with surrounding buildings it would be centrally located with walking areas either side. Where possible, ensure that the width for any cycle route is adequate to safely cater for the demand - refer to typical cycle path width guidelines elsewhere. It may be that, if you already have routes for service vehicles or public transport within your pedestrian area, then cyclists could also use these.

It is important to clearly denote the cycle route from "pedestrian-only" areas. Be particularly mindful of how blind or partially sighted pedestrians will distinguish between the various areas; tactile surface indicators may be useful here. Some useful design features include:

- Contrasting path surface colouring
- Cycle logos and signage along the route
- Edge-lines or tactile edges (low kerbing even?)
- The use of objects bordering the cycle route (watch inter-visibility), such as plantings, bollards, rails/chains, rubbish bins, lighting and seating

With clever planning, object placement can help to minimise the locations where pedestrians will cross the cycle route, minimising the potential for conflicts. However this has to be balanced against the desire for pedestrians to move around unimpeded.

It is not unreasonable to encourage slower and more considerate cycling in high-use pedestrian areas, especially where there isn't a dedicated cycle path. Research has shown that cyclists tend to adapt their behaviour to suit pedestrian densities anyway, but clear signage at key entry points may help to set some guidelines for pedestrians and cyclists alike. A well-designed traffic-free area will also send a signal to cyclists that it should be treated differently to a normal cycle path. Slower cyclist speeds may also be achieved by using cobbled/tiled surfacing or by creating a winding cycle path alignment (without making it too indirect!).

In shopping/entertainment areas, don't forget some bike parking facilities along the way too - cyclists are customers too! These can also be used to provide another pedestrian barrier for the cycle route. Make sure any parking is clear of the cycle route however.

If you're still concerned about unrestricted access for cyclists in busy pedestrian areas, then maybe you can compromise by only permitting them at particular times of the day. After all, that's generally what happens for service vehicles in pedestrian areas. The most crucial need for cycling through an area may be for commuting trips at the start and end of each day; therefore cycling could be simply allowed during the pedestrian "off-peak" (say, before 9am and after 4pm).

There are no hard and fast rules about what works and what doesn't; every place will have different characteristics. If need be, experiment with temporary layouts first and see how it operates in practice before committing to a final plan.

The last thing to remember is that a little bit of user education wouldn't go amiss as well. Make both cyclists and pedestrians aware of the "rules of engagement" for your pedestrian areas, and encourage basic courtesy rules.

Useful References

- Austroads 1999, *"Guide to Traffic Engineering Practice, Part 14: Bicycles"* – Section 6.3 gives details on path widths and geometry.
- CROW (Centre for Research and Contract Standardisation in Civil Engineering) 1993, *"Sign up for the bike, design manual for a cycle-friendly infrastructure"*. Netherlands – Section 4.5 discusses mixed traffic environments.
- Scottish Executive 1999, *"Cycling by Design"* – Chapter 8 covers footpaths and areas free from motorised traffic. Web: <<http://www.scotland.gov.uk/library2/cbd/cbd-21.asp>>
- Sustrans (UK) 1999, *"Shared Use Routes"*, Information Sheet FF04 – has some information on pedestrianised areas as well. Web: <http://www.sustrans.org.uk/downloads/989A79_ff04.pdf>. (153kb)
- (UK) Dept for Transport 1993, *"Cycling in Pedestrian Areas"* (Traffic Advisory Leaflet 09/93) – presents some research findings and design guidance on allowing cyclists in pedestrian areas. Web: <http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_504728.hcsp>



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