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**Traffic calming as a fundamental element for a
successful bicycle promotion**



Contribution by:
Lutz Groll, Urban planner, Hilden, Germany

Contact: Lutz Groll, City of Hilden, Planning Department, PO 100880, 40608 Hilden, Germany
E-mail: Lutz.Groll@Hilden.de

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1. INTRODUCTION

A safe mobility within city limits is one of the key tasks of municipal self administration. It is also the basis for a working urban society.

The first priority of safe mobility is to allow a change of place without being exposed to accident risks.

One of the main if not the most important causes of accidents excessive speed.

So in conclusion the focus of urban transport planning can only be to concentrate upon the topic of speed/ speed reduction.

That has exactly been the case in Hilden in the last 15 years.

2. INTEGRATED TRANSPORT PLANNING

With regard to the topic of speed/ speed reduction one aspect is essentially important.

It is the speed-difference between the various means of transport:

In cities the car is the by far fastest means of transport. Thereby the car constitutes the highest source of danger for all road users.

Busses and trams are in most cases not as fast as cars but because of their size present also a problem.

Cyclists are relatively fast, too, but usually unprotected.

The most endangered road user is the pedestrian. And we should not forget that we´re all pedestrians!

This consideration leads to two conclusions:

- A. the safety of pedestrians has to be a major concern;
- B. the smaller the speed difference is between the means of transport the safer the traffic situation in town is.

Because cyclists and pedestrians cannot reach the speed-level of cars the only way is to reduce the speed-level of car traffic.

To take into account the interests of all road users and to weigh them against each other is only possible with an integrated transport planning model.

Only integrated transport planning faces the fact that in an urban transport system the various components are affecting each other mutually.

3. EXTENSIVE TRAFFIC CALMING

One component of integrated transport planning is extensive traffic calming.

Reducing the average speed of cars, especially in residential areas, around schools and the city centre, is the action with the most positive results for all road users. It leads to

- more safety for all
- a better environment for all.

All the various effects, e.g. shorter stopping distances, less traffic noise, less pollution, less fuel consumption have already been confirmed for a long time by numerous research reports.

Against this background there is only one question left, the question of whether you want extensive traffic calming or not, yes or no.

About 15 years ago City Council in Hilden decided to consequently implement traffic calming in all built-up areas:

- in particular all residential areas were converted into 30 kph-areas with standardized traffic regulations;
- in all residential areas there are several street alterations. These alterations are subject to constant monitoring, i.e. the alterations being supplemented, changed or removed according to current findings;
- additionally the speed limit of several main roads was reduced as well.

4. DIFFERENT INTENSITIES

Extensive traffic calming means that planners are confronted with very different situations. The City of Hilden responded with very different intensities in traffic calming.

In addition to the existing 30 kph-areas there are certain sections of main roads where traffic is also reduced to a 30 kph speed limit. And there are so-called traffic calmed home zones with a speed limit between 4 to 7 kph (walking pace).

Within the 30 kph-areas again there are street alterations of various kinds:

Speed bumps, pedestrian crossings, trees in the middle of intersections, narrow street sections.

The surrounding areas of schools (especially primary schools) were even closer scrutinized. Here are some examples from Hilden.

And once again the remark that traffic calming is a permanent process. New access roads for example are practically built only as 30 kph-areas or as traffic calmed home zones.

5. REALIZATION AND COMMUNICATION

From the beginning the communication of the targets of extensive traffic calming to the public has played a major role.

The necessary political decisions have been made in public sessions of the City Council and the various committees.

That resulted in the respective press coverage.

Thus, in the initial phase of the extensive traffic calming project, more than 20000 brochures were distributed to all Hilden households to inform in a concentrated way.

During the on-going process of implementation further brochures were distributed, one for every single 30 kph-area shortly before the road works began.

The various Citizens´ societies in Hilden were included in the information chain whenever necessary.

The more intensive the traffic calming measures were the more intensive the communication process was (and is) organized.

When a street is going to be converted into a traffic calmed home zone public meetings will take place. This is of great importance as those who have to pay for the street alterations (up to 50 or even up to 90 % of the costs) also have the right to know what they have to pay for.

When schools are affected, the school management and the parents' representatives are included, too.

In special cases interested citizens are included in the actual planning process – when a single street or a small district is involved.

For a planner it is essential for all kinds of communication not to be frightened. Safer streets, a safer traffic is in the interest of all people.

When you have a political decision that points the way ahead to traffic calming no alternative is possible which gives up the idea of traffic calming.

Even when some citizens claim for free streets, in town traffic calming means only seconds, at worst minutes of "delay".

Those who think that those seconds matter must not be taken seriously in the political discussion.

Here some more aspects important for the process of realization and communication:

- regular inclusion of the local police;
- regular monitoring of the speed level on city streets.

Both aspects happen regularly in Hilden.

6. ADVANTAGES FOR BICYCLE PROMOTION

Extensive traffic calming in three quarters of the city area has several positive aspects for bicycle promotion:

- higher level of road safety through a lower speed level
- higher level of competitiveness (compared with cars)
- more room to move to promote a separate bicycle infrastructure in existing streets (in "STREETS AHEAD" !).

In particular several bicycle promotion measures could be implemented; here some typical examples:

- streets with a lower speed level usually have room for bicycle protection lanes. Those can be realized even in streets with more than 15000 v/d.
- at intersections and junctions advanced stop lines for cyclists can be put in place; cyclists can then cross the streets ahead of cars.
- a higher level of competitiveness is tied up with the provision of cycle stands at as many places as possible, but especially at public buildings.
On the other hand the provision of parking space for cars can be reduced.
- as streets with a low speed level allow contraflow traffic, cyclists could be given two way access to all one way streets in Hilden.
The street grid of Hilden therefore has become more open for cyclists, the distances have become shorter, direct visibility has made cycling safer.

In conclusion it is worth mentioning that pedestrians are profiting as well. Streets with a low speed level can be crossed far more easily.

The pavements will become once again "pedestrian territory" almost exclusively.

As a result all road users are profiting from extensive traffic calming. Because of that extensive traffic calming is appropriate and important.

7. SUMMARY

Modern transport systems consist of various complex components. An integrated transport planning model is essential to consider all components carefully.

To concentrate on only one means of transport usually leads the wrong way, especially in cities (in modern urban systems).

In comparison extensive traffic calming is a strategy which copes with the demands of integrated transport planning.

By extensive traffic calming enormous potential emerges for a comprehensive and effective improvement of an urban transport system.

According to the respective local situation this potential can be used for bicycle promotion, for the promotion of public transport or of pedestrian traffic – without real disadvantages for car traffic.

Hilden has made the most of this opportunity and is continuing to do so.

Lutz Groll, Urban Planner, Hilden, Germany, October 2005